

<223> Clone ID: LIB190-042-Q1-E1-G7

<400> 4641

acggacgcgt gggaaaaaaaa acaaaaaaaaa gaaaaaaaaa aaaaaaaca aagaagtgga 60
ggtagcaca aaggatgcaa gcttacgtgg tcgtgcatgc aattgtccgt gcgtcttcta 120
caatgtcacc caaattccat t 141

<210> 4642

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-G8

<400> 4642

gggccgaccc acacgtccac ccacgcgtcc gcgttttcgt gtactcggaa agaaagcatt 60
cggtcaccag aggtacatct tcttttggtg atccctaggc ttacttcatt ttctgaagtg 120
ttacgccgaa agtcagcact gcaacaacca ctttcatatt ttccgaagga agagtttttt 180
gaggcatcaa tcaatgtag atatccatct tcgtcgcagg tagccattat ttgacctccg 240
cctgctattc ttgaaaattc aaccgcaaac agaggtagtg gatagtattc atcgttcaca 300
aactcacacg agtgacgcct agaagtccac aagggtttta aaagttcatg tgttttcttt 360
ctatataagt catcgatttc ttgtcttgag agtctctcta gctctcgtgc aaacaaagtg 420
ctcagagtac aat 433

<210> 4643

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H1

<400> 4643

cggtccagaa ttcacgggtc gacgcacgcg tccggaatat agtcatttct tatggaaaga 60
gaagaacaac agcaattcat cgacgagtca ggataaacga cagtatcatt tatecaattt 120
tatagcaatg acgggacatg tgattgctcg agcggaaaaa tggaaatcaa agccttggac 180
agcacgtgct acttgtagta ttggattgca aggtcaaaaa ggaaaacttc gtagaaaatg 240

gtttgatttt agtggattct cttttcaagt ctcacaaact gtgggtgcac tttccacctt 300
tctatttgaa agggaagaac aaagaacggc tttgaatggc ggtttggttc aacatttata 360
tggcaactgt agaataggat tggaaaggag atggacttgt gtttgttggc aaccaatgga 420
aaccaaaacta tctttgcaat 440

<210> 4644
<211> 449
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-H10
<400> 4644

cgggtcgacc caagcgtccg agtagttcca attctgataa agaaggtctc catattggcc 60
caaactgtca acttgtagtt tgctctgttg ataacttgaa agactttttg ggtagcaag 120
tttatgaaca actccagaaa gtatcctctg atactgaaag cgttttgaac aagttggatc 180
ctctcgcgaa gttgtagga caattattga cgagcgatgt tcctatagaa cccgattcgt 240
cccatatttt ttccaaaaca gcagataggg acgagatgga agtggaagat gtgagtagag 300
aaagagtacg aggtgttata ccttttgatt ggaaaacgtt tcttcaccag cgtgctttat 360

tgccggaaga agtttcaact cgttatgctc cgagtttttc acgtatattt ggagataacc 420
caagagtaat tctgaggagc tcactaaag 449

<210> 4645
<211> 111
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-H12
<400> 4645

gtccgagaaa ggaatggttt tattagatag tggagtcagt cgtttagact agtgtgctgt 60
atatattggt tgacgtcttg aaagggtcgt cccggtgctg tgtgggactt t 111

<210> 4646
<211> 461
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H2

<400> 4646

attaacgggt cgacgcacgc gtccagtagc gaaacaagag aagggaagta aaaggtaaga 60
aagaggaaag gtttacgaga gaaggaagta gaaagaagag agtgtaaggc ggcgtcataa 120
tagaaatccg aaaggagtag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt 180
actgaagacc gacacaggta ctcgaggaga aaggagaccc aaattaaggt gagagaatgg 240
acgataagga actaggcaaa aggatatggt atctgcggta gaacatatga aagaagcagc 300
accgactgtt tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatagagt 360
gtgcggcctg ccaaatagtg gagtagcgaa acaagagaag ggaagtaaaa ggtaagaaa 420
aggaaaggtt tacgagagaa ggaagtagaa agaagagagt g 461

<210> 4647

<211> 466

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H3

<400> 4647

ggtccagaat tcacgggtcg acgcacgcgt ccggaatcag ggtaagaggt agaggagcaa 60
gaagagaaga gagaatgctg ggtggagtag cgaaacaaga gaagggaagt aaaaggtaag 120
aaagaggaaa ggtttacgag agaaggaagt agaaagaaga gagtgttaagg cggcgtcata 180
atagaaatcc gaaaggagta gaagaaaaga gagagaagaa agaaaagaag agaaaagccg 240
tactgaagac cgacacaggt actcgaggag aaaggagacc caaattaagg tgagagaatg 300
gacgataagg aactaggcaa aaggatatgg tatctgcggt agaacatatg aaagaagcag 360
caccgactgt ttagcaaaaa cacagcactc tgcagaaaag agaaaatgta aagtatagag 420
tgtgcggcct gccaaatagt agagaagaaa tcgatgaaag tgaaag 466

<210> 4648

<211> 392

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-042-Q1-E1-H4

<400> 4648

ttcacgggtc gacgcacgcg tccgagagaa ggaagtagaa agaagagagt gtaaggcggc 60

gtcataatag aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa aagaagagaa 120

aagccgtact gaagaccgac acaggtactc gaagagaaaag gaganccaaa ttaagggtgag 180

agaatggacg ataaggaact aggcaaaaagg atatgggtatc tgcggtagaa catatgaaag 240

aagcagcacc gactgttttag canaaacaca gcactctgca gaaaagagaa aatgtaaagt 300

atagagtgtg cggcctgcca aatagtagag aagaaatcga tgaaagtgaa agcgagtaaa 360

agatgaggta tagagaatgg cggtcctaac ag 392

<210> 4649

<211> 265

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H5

<400> 4649

caggtaaagg tctagaagtc ccgggtcgac ccacacgtcc gaccacgct ccggaaagag 60

gaccgaatca gggtaagagg tagaggagca agaagagaag agagaatgct gggtaggagta 120

gcgaaacaag agaagggaag taaaaggtaa gaaagaggaa aggtttacga gagaaggaag 180

tacaaagaag agagtgtgaa gcggcgatcat aatagaaatc cgaaaggagt ataagaaaag 240

agagagaaga ataaaagaaa atcac 265

<210> 4650

<211> 264

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H6

<400> 4650

tccaccacg cgtccggaag caggaccgaa tcagggtgaa aggtagagga gcaagaagag 60

aagagagaat gctgggtgga ctacggaac accagaacgg aactcaaagg taagacagag 120

gaaaggttta cgagagaagg aagtacaaag aacacagtgt aaggcggcgt cataatagaa 180

ctccgaaagg agtagaaca accacagaga ccaccaccg tcgacacaaa cggcggccgc 240

tctagacgat ccacgcctac gtac

264

<210> 4651

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H7

<400> 4651

attcccgggt cgaccacac gtccatgtta gtcttcagtg gtgagcggat atgtctctga 60
cagacatcct gtattgggtg gaccagtag tttggagcaa acgctttgac ettccactat 120
ctgttacttg cttctttata tatttcatag tatttcatat agcttgtgcc ttctttggta 180
ttgctgacta ttggaagctt ctgcgcaagt acaagctgca cgaaagtgac gagaagacct 240
acctgcagtt gctgccaaga gttgtgttca atcaactggc gttttacttg actagttgct 300
acataggaga gaaaatgggt tggatattca gaaccccttc taaagacaat gctttccaac 360
tctggaagtt gcctatctat cttactttgt actctttcta tcatgaaatt atagtttact 420
ctgctcatcc ttggctgttg caatccaag 449

<210> 4652

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H8

<400> 4652

accacgcgt ccgaacaact attatcatct tgtgatgctc gccccctcct ctttttttat 60
tagaacatca tggtaaaac gaaatgatca aacacacaag gaataaaggc aacgtcgact 120
ttttggaata gggccatggt atcgaaatcg caaaactaat aggcataacg tgtggaggtg 180
atcttcaaaa ggtggataga cgtattgtat caattattgt aaaatcaggg aagatcttca 240
acggagcaag ttgtaaaacg gaaaagggtt cccaataaaa agtagatgac cctaagtgtt 300
cgctgtaagg aaactttgtt taacattaat aaaagctctt aaagttattg gtcttgtcaa 360
aaa 363

<210> 4653
 <211> 425
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-043-Q1-E1-A10

<400> 4653

 cggggtcgacc caagcgtcca ggcagcttca gttttgactc agattcaaag agaagccatg 60
 gagaaggcag ggaaaacatg gaatccggat gaggaaaaag cattccgtga ttcacttatc 120
 gaaaagtatg aaagggaagg ctctccttat tatgcgtccg ctagaatatg ggatgatggc 180
 gtcattgctc cgcaagatac tcgaaaagta ttgggtcttg ccttggtccgt cgtaaccaat 240
 ggacagaaaag tatccaaaga acaagagcat ccgttttctt atggtatatt ccggatgtaa 300
 tggttatcca gaatcatttc taagcatctc tataaagatt tattttattt tcttgtgtta 360
 aaaaaagtcn ttgcaaaagc aaaacgagca agaagaataa ctactacgaa aacattacgc 420
 tgggt 425

<210> 4654
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-A12

<400> 4654

 ccggggtcgac ccaagcgtcc gagcacctgt attattatcg tttttgttgt tggtgtaaca 60
 gcctgtgtct ctctaaagag tttcttgaaa tgcagagagt tggattgggt ggtgattcgg 120
 tcaccaagct tcacttggtta aggcgcagtt tctcgcaata tgcaagacct tggaataatc 180
 ctgaaggaat atatgccttt gttcgacgtg aaaaagattt gggctcctta cccggtagag 240
 aatggactat tgatgagcta agattaaaat cctttgacga cttgcacaag ctttgggtggg 300
 tccttataaa ggaaagaaac gctttgttaa ctgaaagaga ctggtgtcgt acagcgaaac 360
 gagaatggaa cggtgaaaaa gcttttagaaa aggtatgaag gagagcaaac ctttgtctgt 420
 cccgtatcgt cacagcaaca acac 444

<210> 4655

<211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-A4

 <400> 4655

 tccgggtcga cacacgcgtc caacaaacaa gaaatggtat ataatgatag atgatgatac 60
 ttatgtcttt ttggataatc tcgccctaac tttgcaaatg gatcatttcc gtcttttggc 120
 ggaagaagaa cccttttact tgggcaatcc gttcacagtg agtaattgtg acaaatatgg 180
 agagttcttt gatgatcaag gaaaacacaa tccctccttt gctcatggcg gttctggaat 240
 tgttctttcg aaagcggcac tggaaaagat agtcgatcat attccgtggt gtatagaacg 300
 ttgggacggt tgtaaagaag gggatgctgc aattgggtccc tgtttgcttt cttttc 356

<210> 4656
 <211> 382
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-A8

 <400> 4656

cccacgcgac cagcgaaac aagagaaggg aagtaaaagg taagaaagag gaaagggttta 60
 cgagagaagg aagtagaaag aagagagtgt aaggcggcgt cataatagaa atccgaaagg 120
 agtagaagaa aagagagaga agaaagaaaa gaagagaaaa gccgtactga agaccgacac 180
 aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat aaggaactag 240
 gcagaaggat atggatatctg cggtagaaca tatgaaagaa gcagcaccga ctgttttagca 300
 aaaacacagc actctgcaga aaagagaaaa tgtaaggtat agagtgtgcg gcctggcaaa 360
 tagtagagaa gaaatcgatg aa 382

<210> 4657
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-B10

 <400> 4657

cgggtcgacc caagcgtcca gttagacctt gcctgtggta gtggggaaac ttcccttcaa 60
 gttgctcacc tagtttccag ccaactaaag gatgaagcca aagacgcaaa gatagtttgc 120
 gttgatattt cggacgaaat gcttaaagtt ctcaaccaa gagcacagga aatggggcta 180
 gcaaatatgg tggaaacccg ctgtgaggac gccgagaagg tcgactttgg tgcgcactat 240
 tttgatatgg ttatgagtca gtttggagtt atgtttttgc cccatcttgt ggaagacttg 300
 gcgaggattc gcggtatgat gaaaccgggt agtttatttt cttgtgttgt ttggggagag 360
 gaaaaggact gtcatatattt ttacgcagct aggagcgtta tcagtcctcc tcctccacct 420
 ccaggaactc cagttt 436

<210> 4658
 <211> 331
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-B4
 <400> 4658

acgcgtccac cagcgtccg cccacgcgtc cgaaaggaga gaaagaggaa agggatgaaa 60
 tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt aaatgaggcg 120
 agaaagcata ggaagtgaaa cggattagga acccgtgtag tctatgcagt aaaagaaaga 180
 atgagtaaga aaaaaggagag tcattccacc aggggagtaa aggcgcata aagaaaccca 240
 gaccaattga cgggaatcgg aaaaaggggt ggatcactaa attaatccga tataaaccga 300
 gaaccttacc tctccaagag ggtgttgcac g 331

<210> 4659
 <211> 302
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-C12
 <400> 4659

cgggtcgacc caagcgtccg agccacgcgt ccgaaaagga ggggaatgaag ggaagttatg 60
 gcaaaaacac gtgccagcag cagcggtaaa acgtgtgtag caagcgtaga gcagaagaac 120
 tgggtgtaaa ggtcgagtag tagagtaagt gtaaaaggga aaggaaagga gagaaagagg 180

aaagggatga aatgcagaga tctctagaga aaggcaagaa agaaaagaaa ggaagacaca 240
 gtaaattgagg cgagaaagca taggaagtga aacggattag gaacccgtgt agtctatgca 300
 gt 302

<210> 4660
 <211> 297
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-C6
 <400> 4660

cgacccacgc gaccacggac gcgtgggagg acgcgtgggc ggacgcgtgg gaagacaaca 60
 atgtctcgtc ccaagtgttt ctttgatatt gctatcggtg gacaacctgc aggaaggatt 120
 gtattcgagt tgttctccga tgcgttcct aaaaccgcgg aaaatttccg tgccctgtgt 180
 accggtgaga aagggtttgg gtacaaagac tccaagtttc ataggatcat tctccagttc 240
 atgtgccaag gtggagactt tacacactgc gatggaaccg gtggcaatag tattttac 297

<210> 4661
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-D11
 <400> 4661

gggccgaccc aagcgtccga ccacgcgtcc gccacgcgt ccgcccacgc gtccgtacga 60
 aaatgagcca aagcgactcg tttggtttgt tgcttttcgc gccagcagct gtatccaaaa 120
 aagcaacagt tatcaaagac ttgaaacaac aagattgtga gatagtgtat gaggaacaga 180
 ttagattgga cgtcgagcgt gcgaaaaagt ttcttgagtt gtattccaag cgcagtgaag 240
 aagaagcaaa ccgaaaagaa gacacgatag ccacactaac ggaagactcc tgcttggcac 300
 ttgttgtaaa aaagaaacaa ctttcgacga ccttgaaaca actatttgaa cagaataatg 360
 tttctgcgga taaggaggga ggaggagaaa acacggagga gaatgttttc tcgacaaaat 420
 atggttttc 429

<210> 4662

<211> 386
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-D12
 <400> 4662
 cccaagcgtc caggaaaaat gttaagttgg ttgggtcgtt ggtgggacag tcatgtagta 60
 gaaatggctt tagacaatgt taaaaatgag cagatggaaa gaatccgcaa gacaattatt 120
 tcaagggtac cagacgttcc taccgtggtt gaaattggag caggctcagg tctcaatttc 180
 ctgcactacc cttcttatgt gaaggatttg acagttatta ctttacaaga agaactcagc 240
 aaaagagctc gacaaaaggc acaacagaga ggtctgaatg tgcatcatat tcagggagat 300
 ggccgagtag ttcctttgaa agataactcg gttgatgtgg tcgtagcaac ctttctattg 360
 tgcacagtaa gcgatgtcgc ggggtt 386

<210> 4663
 <211> 155
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-D8

<400> 4663
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 aaaaaaaaaag gcggaagcac ctgagggtat aaaacttacg tacacgtgca agcaacttta 120
 ctggctcgtc gaaactgtca gccaacgtta ctttt 155

<210> 4664
 <211> 73
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-E10

<400> 4664
 aagaggttcc aggcttactt ccgctgcat gcaacttcat acctcttcgt atattgtcac 60
 ctaagtgtca ctt 73

<210> 4665

<211> 109
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-E5

 <400> 4665

 ttacaaagcc tgtaaaatcc tcgtagtcct tacgatgagt ctacgtggta cacagatagt 60
 agaacacttc attttttaac caaaaagaaa gaagaggaga agggagggg 109

<210> 4666
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-E9

 <400> 4666

 cgggtcgacc caagcgtcca ggggtgaatgg caaaaacacc aaaacagtat taaaagagaa 60
 acttaagggtg caaacagatc tgacggaaaa tagtcagaaa aataagtctt caagctcaag 120
 agcttcttgg gaagagtctt tgcggagtgc gaatagaaga gacgaactgg aatgttcgac 180
 ttcgtagttt ggaaacgcag ctttatgcac tttttgtatt tgttttgta atgtcccttg 240

 ttgtcttgat tggatttttc tttgttcttc gagcagaatg aattcaaggc caccttttga 300
 atgatcgtat cgatcattta gaagagctgc taaaaagtca ggatggaaaa tgtcagagag 360
 atttgctcc agtagcagaa tgtgctaaag aaccttcgtc actcat 406

<210> 4667
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-043-Q1-E1-F10

 <400> 4667

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 aagtgcattg tgttgaaaaa ttgctgcaat tctgttgact cgtttcactt gttcctat 120
 cattgtttcc tttacggcat tatcttttga agctagtttt aaagtgtatc gctctttaca 180
 cttgattggg aagtgcacat agtttacaag gttgtgagcg aatcacgaag agggagtgtg 240

tctangacat gctatTTTgt tggTcgctgt ggttgTTTTc tacagtggca tatttgataa 300
 actcgTTgcg aaatatcatc ttggaaatgc ccacaaagcc agttcgTTga acaataaaat 360
 ggattaactt gcgtgg 376

<210> 4668
 <211> 457
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-F11
 <400> 4668

ccgggtcgac ccaagcgtcc aggcgaaacg taatcgTTtg aagcttgaga atgtggaaac 60
 cTTTTtgc aaagtggaaa acattcttaa ccagaagcaa gatgtcattc cttcactggT 120
 ccatggagat ctatggTcag gcaacattgg ttttcttaat acgggtgagc ctgtaatttt 180
 tgaccctgcc acctattatg gtgatcgTga agtagacata gctatgacag aattatttgg 240
 aagattgcct gaagagTTTT atattgctta caacgatgaa tttccgTTtag cggaaggata 300
 tgagcaacga agaatcatat ataatcttta tcacgtctta aatcattaca atctatttgg 360
 aggaatgtat ggtcgTcaag cgaagagtat gatggaagaa ataatggagt ttatgtgata 420
 gtgcttatta gTTTTcaaaa gttgacattg tccaaat 457

<210> 4669
 <211> 361
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-F3
 <400> 4669

ccacgcgtcc aatttagtca tgtcgTcttc aaatgagtct atcgagacgt tattgctaaa 60
 gacgtttcct aaagaaatcc ctacttcgta ttgtctcgTg tatgcatttt tggctattcc 120
 ggtactcgcg ctcgacgtgt atttatatct tgccgtactc cacttgaact ttattgcttc 180
 aagcgTTtcg ttgatcatcg gtactacagt cggcttggtg cttctagtta cgTcgTatca 240
 taaaactgca tatgccaaGT ggtctaagct cgatcgcaaca acagagcaac caaccaagag 300
 ctctttcaag ggtaatttGT cggcataccg aagtggagtt gagagtcacc tatggctcct 360

g

<210> 4670
 <211> 180
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-F9

<400> 4670

gacccaagcg tccaaccacg cgtccgcgtc tacaagcaat ttccatcttt ttccctcatt 60
 cattcttaca tttcagtaga tgtacaatat ttttttcatt gtcaaaaaat attgcacaat 120
 ccacccatcg aaccacgaaa aaaaaagcct ttcgaggctt tctttctaca cttttgcaaa 180

<210> 4671
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-H11

<400> 4671

ccgggtcgac ccaagcgccc gagcctatct gttgatagcc cttttttctc ttaattgttt 60
 tttctctagt tcagctgtcc ttgtgaagta ctttattgtt acccagggtc aatattccca 120
 aagctgagag taaggaagag aagcccgccc caaaacgcgc tgtatcccc tacaacgaat 180
 atatgaagaa gatgcttccc gtcataaagc aacaaaaccc caatctttcg catcaggaag 240
 cttttaagcg ttgtgctgaa agttggaaag acgctccaga gaatccaaag aaccaggctt 300
 cagcctaagt taggggtttt ctttgaattg gtgtttctca acaccaccag gagaaggaac 360
 tagtctatct tatatttcgc tttgtgtctt caagcacgga atatgaggag aggtagactt 420
 ttgt 424

<210> 4672
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-H5

<400> 4672

cccacgcgac catttttttt tttttttttt taaacaaaag aatggagaca tatatctatt 60
ctgttctata gtgagaagca cattgaggac cactagaaag ctgcatacga aacaacaaca 120
acctacacaa ctaacgacac gagataactt gagacacaca aacacaagca tatccgtgca 180
cacacgccga gttgtgatta gccacacacg cacacacacc ctactatcgt gctgaaatca 240
aacctcttaa aacatgtccc tgaaatacac agagtttaat aaagcagacc ttttcgcgtt 300
ccaaaaaact aggttcaaag caattggtga aaaacgtgaa ta 342

<210> 4673
<211> 365
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-043-Q1-E1-H7
<400> 4673

acccacgcga ccacggacgc gtgggggcaa cgatgaaagc tgcgtcagaa agcaaagctt 60
taaagggaat attggcatat accgaagata tggtagtttc tactgacttt gttcacaata 120
gtcattcttc gatatttgat gcgaatgctg gaattatggt gtcggaaact tttgtgaagc 180
tgattgcttg gtatgataat gagtggggct actccaatcg tgtttagat ttggtgcacc 240
atatggcgaa agttgatggt gtagcttaac tctgcttttc ttgttgtttt ttcgtgtatt 300
gtttgttttg tgaaagagat gaaatgtggt gtcttttcca taaaagttg tgtgcgctgt 360
gaaaa 365

<210> 4674
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-044-Q1-E1-A10
<400> 4674

attccaaagt cgacccgcgc gtccgagcat gcgaccgccc acgctccgc ggacgcgtgg 60
gatgaacaga ttcgatatct tcgataatga tgctgtgaga agtttgacag tctcgtacg 120
tgctgatata tcttcaggat ctagegagtc tctttgtctc gtcgaatcca aatgaacttc 180
ttgacggctt cgcgacagaa ccgtccttgg acgtagattg tgctctaaa tgttggtact 240

tcgcagaatg ctgtaagcaa cggaaatcgc caaagtgagt tgaatcaata gtttgcacct 300
 tcagtttcag tgtgatccag tacactcatg gcgctcttgg gaaacatggc actacagagt 360
 tcaaagaata gacatgttga tgacccgacg gtggtgacct gtgctgctg a 411

<210> 4675
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-044-Q1-E1-A12
 <400> 4675

acgtccagta tgaaaggaga aacgagtgtg gactgtctg gtcgtccaac tcagcgaaac 60
 agcaataact gtgaaaatgc agtaaaactag cagtaggacg gaaagacccc ataattcttg 120
 actagatagg tttagggagg agagagaatc atgaagtaga ggaggtgggg taagagatga 180
 aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct taagctagtt 240
 tggctgggga agtaaagcct aagaaagagt aaattaggca agcaaaggca tgagagaagt 300
 ataatagcag aagcatgctt gaagaaaaag aaagagattt cagaaaggga agaaaagtca 360
 gctatagaga 370

<210> 4676
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-044-Q1-E1-B9
 <400> 4676

gtcgacccgc gcgtccgacc acgcgaccgc gacaatgaga aattggaggt ttttttgtgt 60
 ccaaggacac actggatata cacttggagt gggaatggat aaggtctcaa aagacaacaa 120
 ctttgtcaaa gtaatactag atagtgacca caacttctct ccttgccggt tggatatgcg 180
 tagcaccgta gagaatggtt tgaaggaacc aggtatgctt ggaaagaata gctcgaagaa 240
 aaccctgttg gtggttgctt ttgctgtgaa tggagttgtg ccaacatgcg ccagttcggt 300
 gcttggtgga accaaatata tctttaagca gaacaacgag tcgcgtaagt acgctttgcc 360
 acgtcgaact tgtgcggctg tggtaaatcc atcggctctg aagtgttgtt 410

<210> 4677
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-044-Q1-E1-C2

 <400> 4677

gctcttcctt aaattctttg tgcttgaca atggttgcaa agactgctct gagttgcctc 60
 tttctctctt tccttatcgc tgccgcagtt gcagccgacg tagtttcaga agagagatgg 120
 ggatatgctc agcaaaccce acaacagcaa cagtgccaac aagtatgtaa acagtatgca 180
 tactatcaga gtccagtctg cacttccgta accacacaga gcccatactg gacccaatgc 240
 tcgaagactg tgcanaccct ttgtccaagc cagtgaatt acttatacca atctcctaca 300
 tggacctatt gcagcaccta caccaccact agcggtacat ctcaatgc 348

<210> 4678
 <211> 378
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C6

<400> 4678

cggacgcgtg ggtaaattcg ggctgcctt cctatgcagt atcagtgtgc agactgtgga 60
 aatgttaacg aaatacgttt gggatgaacca gtccgctgca actcttgtgg cggtcgaatt 120
 ctgtacaagc ttcggacgaa gagagtagtt cagtacgaaa ctcggtgact gcgttgcttg 180
 atacagtcct agtactattc acaagccaga cgttacgcta ggaaagtctt tggttggttcg 240
 gtaaaactcc tcggatgatg tgtgcttatt tgtgttactg ttgcacgact ctaaatctaa 300
 acccattgat tttttagtg tttgtgtct caagttgtta ataaaaaact ttgcacatag 360
 ccaaagactt gttccaat 378

<210> 4679
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C8

<400> 4679

tattattact gtcgtggttt ggatatttgc tatggttatt gtttgtggtg cctttgcagg 60
tttgaggagg aatagttggt ttccgaatag gaggcgtcgc gtttctcgcg aggcgcctgc 120
accagaacat ggagttgctt cggcaaacga taactatagt tcgcctcctt ttgtatttat 180
gtataatgtc tacctgccac gtcttgatac agtagcgcct gaaatagtgt acggaagcga 240
agaatccttt ctgaaacaag aacgacagtt gaaagaacgc tttgtgaagc gttacatgtc 300
tcagcgggta ttcaaacaag acgaaaaaga ggatagtttg tccctatatg tcgattctac 360
cacagtagcg gtggaagacg gcgccctcag tgggactgcc agtagagaga aga 413

<210> 4680

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C9

<400> 4680

attcctaggt cgacccgcgc gtccgacaaa atgaaacgga agaataattc gtaaataag 60
cgacgacttt gtagtcattg tggagaagct tttgccaaca tttcgataag tagaaagaac 120
aagcacttgt gtcgttggtt tttctacaac tacttggaag acacagttca tcaaacaatt 180
gttgaagaga agctttttca accgggtgaa agaatagcaa taggagcctc tggaggaaaa 240
gattccactg tattggcata tgttctcaag ttgttgaacg agagatatga ataccactgg 300
gacttgtggt tgctatctgt agatgaagga atacacggct atcgagacga ctctttaaga 360
actgtggaac aaaatagaga tgattacaat cttcctttat acgttgtatc ctatagtga 420
ttgtatgatt ggactat 437

<210> 4681

<211> 394

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-E11

<400> 4681

cacaagtgaa atttgacaaa aggtcggaat ttactcccg c tgggtatctg aaagtagttg 60
catgtgatta tgtaaggcca atcagcccaa agtcaagtta attttgaagc ccaatctttg 120
gattacaagt agagatcctt gtaactgtcg aaggtcagtt acctgtcacg tggatagata 180
gatatttata gagatgtaag catgttgctg tgaaacagtt ttgcaacgac tagtaatagc 240
tatccataaa cgacttgagt gtatgtatcg tccaaacact tgcaacaacc tggctcgggt 300
ttactgaaaa aataatcgag ctggcggctt ttgaattgct catcaagtca tgagggcggc 360
tgctctagaa gatcttgact aaagtcagcg atga 394

<210> 4682
<211> 439
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-044-Q1-E1-E12
<400> 4682

attcctaggt cgaccacccc gtccgataac tccgacaaca cagagcttac ggcgagtttt 60
cctgtgccaa gcctggagaa acctgctaag aaaaagttaa attcgtcagg aagctacctt 120
gtgattggag gttgtttggc aaacgccgct gtattgtttg ggggtttgat aagttttcgc 180
cgtgggaact ctcgcaactc tcaaagtgtt atgcgtgctc gtgttctgac acaacgtgca 240
accttggttg cggtagcagg tactttctgg agtgcagcaa atatgaaaag ganggagagg 300
gaacaggcag aagcagccgg cgaagagttg ggagtagaaa ccttgatga agacaaggcg 360
atggctctcc tagaaaagac cggctgacag aaaagtatga cgtagactgt atagtgttcg 420
aattgtgaaa atggtttta 439

<210> 4683
<211> 163
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-044-Q1-E1-H10
<400> 4683

gtccgacgaa aaaaaagaga aaaaggtaag aaagaggacc gaatcacggt aagaggtaga 60
ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaagtaaa 120

aggtaagaaa gaggaaaggt ttacgagaga aggaagtaga aaa

163

<210> 4684

<211> 287

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-H12

<400> 4684

atttgaagat gactagatgt catttttggc accttttgtg taacagagtt ttctcgtgtg 60

tttgtttacc tggaacgcgc tgttgattga gtgttttcag tcaaatttcg tagtaaacga 120

aatcattcga tggtttggtta gactgactgt cgtgaggatt gttttagctc atgccacaag 180

gctttcacat gcgccttata aactatgcat aaattgacaa attttgcaaa ggtagacaca 240

gttttcaagt gaaagatcat ggtttgcgag aatttagaat acttgtg 287

<210> 4685

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-A4

<400> 4685

cccggctgga cccacgcgtc agcacacgca tccggatattc acgagcttaa ccattattgg 60

ggctttttgt tgcaaggctc ctgcatacga aaagactagg attagtttat acacatgaca 120

tcatactttg tatcattttg ttcttgggta aattttttat ctcccaatgg gttgtatgct 180

gggaaaatgg ttgttttgca tatgtaacct tacttgaaaa cgaaccatat atccactcct 240

cgtactacac tgtatgttaa gcagactggg gataaacttg gtgaaacttt tcacttgtat 300

gttgtgcatg gacacctcac agtcaattaa gctctgaacc tgggtggagct attttgagca 360

aatagccgat agttgagaga gagtctcgcg ccctcattga gaaatg 406

<210> 4686

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-B1

<400> 4686

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ccgctaaggt caaacctcc cctttttgca aaaagagaaa gggaagaagc aacaacgaaa 120
cagtcttcac gtctgctgc ttcgctggcc aacgtgaaga ataatcctac gagtggaac 180
caaagagaga agaccaacca aacgacgacc cctccaactc agaagcctag tatgacctct 240
tctctttttg ggggaatgct angaagtatg ctcccatgt ttttatttat gaactggttc 300
aggaggaatc ccgaggaaag ggaaccagac aaagatgaga tagctcagaa gaagtgtcag 360
aggcttgctg gcaatattca agattgtttg gaaaaaaacg actatcagca aagtatgtg 419

<210> 4687

<211> 320

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-B10

<400> 4687

gaccacgcg tcagtgactg ctccaggaat ttccattggt ttttatggag gttttgttac 60
tattgcttgg ttctatgcca tgtttatgat gcctgaaacc aaagataaga ctttggaga 120
gattgatgct ttgttttcca tgtcgatgcc tgatttagcg aaacataatt gggataatgt 180
gaagaagaca gtggatgac tcttgcatct taggttgaga gaagtttga aggtttacaa 240
gtgagcgatg attgttattg ttgtattttt tgagtacttt atttgtttgg taacaataaa 300
agcataaatg cgtgcataac 320

<210> 4688

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-B8

<400> 4688

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ctgctctgag ttgcctcttt ctctctgtcc ttatcgctgc cgcagttgca gccgacgtag 120

tttcagagga gagatgggga tatgctcagc agaccaaca acagcaacag tgccaacaag 180
tatgtaaaca gtatgcatac tatcagagtc cagtctgcac ttccgtaacc acacagagcc 240
catactggac ccaatgctcg aagactgtgc aaacctttgt cncaagccag tgcagtactt 300
atacccaatc tcctagatgg acctattgca gcacctacac aaccattagc gtaccatctc 360
aatgcagcaa ggccgtgact acctatattc aaacctgctg tgc 403

<210> 4689
<211> 318
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-C12

<400> 4689

gacccacgcg tcaggtgatt gttgccatgg ttttgtttga catgatttcg aatctgatag 60
aaaacgctcg agcaccaaca gagcaagagg tggagcagga agcaaatgac aggatttatc 120
gacgctaata aacaacatga cctggtgcca tatatgtgga gttcacctgt gaaaccacca 180
tactggtgga agtcggatgc ctttcaagaa cattataagc aattgtgtca cagacataag 240
cagcgcctca agaccctcgc agagcgaacg ccagaagata tgggagaaat gtacagatcg 300
aataaccttt gttaccgc 318

<210> 4690
<211> 237
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-045-Q1-E1-C2

<400> 4690

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gagaaaggaa aaaactgagt atcaggaaga aaagaaggag tanatgagga aagaaagata 120
aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc aggaaagtat ttgaagaaaa 180
aagtgtaaac cgcgtacctt ttgcataatg tcccagcgag tgaaagagga accaaaa 237

<210> 4691

<211> 419
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-D1

 <400> 4691

 aattccccggc tcgaccacg cgtaaggagc gagaggcaag gtgttatcat ggcaaacgca 60
 gtgagaattg gtgctgaagg ttacaggta aagttggacg gtgcagttca agagatagac 120
 ggtegttctg tagttctggt agatgtggat agtattaccc ctctcatggt tggaggtagt 180
 atgaaagaaa aggccaaatt gttggatgcc aagtttcgaa ggaagtatta tgaggagaac 240
 aaggacttct tcttcttgct gactagagaa gataagaaaa tgtttgtgac gttgcaactt 300
 gccagggaat atgcagagct ggtagatgac caattcttga agggcttctt cgagaatgct 360
 ctggagtcgg ctcagaagac gtattaattt gtcaagtagt gtgtatgtat gcgtttgaa 419

<210> 4692
 <211> 112
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-D5

<400> 4692

 acccacgcgt cagaacacat gcaagtaggt aaagcgaacg ggtgagtaaa gaggtgtgaa 60
 agagtggaag aacatgaaag cacagaagaa tgtaagaaat ggtagagta aa 112

<210> 4693
 <211> 52
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-F10

<400> 4693

 acgcgtcagg gaatatacgg gaaagcagta tgagatgaaa gacaaacgac aa 52

<210> 4694
 <211> 230
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-045-Q1-E1-F5

<400> 4694

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agaaaaaag agaaaagccg tactgaagac cgacacaagt actcgangag aaaggagacc 120
canattaagg tgagagaatg gacgataagg aactaagcaa aaggatatgg tatctgcngt 180
agaacatatg aaagaaacag caacgactgt tttaacaaaa cacagcactc 230

<210> 4695
<211> 253
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-G11

<400> 4695

acccacgcgt cagcgaacgc gtgggaggac tcttgggttg gaaaaagatt tggaaaaaat 60
ggaataaggg ttgaaaggca attcaaact attgaaacct ggaactcctc gaaagctata 120
taagtagcgt atgcaggaaa gaagaaggta aaggaagaga aggaagaagc acatagggac 180
tatgagcgat aaggtggata gtcgagacgg aaaaagccca gaagccaaga taatgtatca 240
aagtaaagaa tga 253

<210> 4696
<211> 274
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-H11

<400> 4696

gacccacgcg tcagcggacg cgtgggaggc cccttgggtt aacgttacct aatggattgg 60
tggatggggc aaactcgtgg ttgggcttcc ttttgggaaa caaaaaaag tcgtctctgg 120
aaaaatggca agtagagtac cttggaataa ctttcgtatg cctttggttg tgggtggcgg 180
ggtggtccta gtggtcctgc ggttcgagtt gcaggtttgg ctattgcagg tatcgtaca 240
gctgccattg gttataaata tggtttatac aacg 274

<210> 4697
 <211> 378
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-H5

 <400> 4697

 agcccacgcg tccggttaaag tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg 60
 atgaaagtga aagcgagtaa aagatgaggt atagagaatg gcggctcctaa cggtaaggat 120
 ccaaaggtag cgaagtaa atagacgtttga aaggcgtcca gtatgaaagg agaaacgagt 180
 gtagcactgt ctagtcgtcc aactcagcga aacagcaata actgtgaaaa tgcagtaaac 240
 tagcagtagg acggaaagac ccataattc ttgactagat aggttttaggg aggagagaga 300
 atcatgaagt agaggaggtg gggtaagaga tgaaagacca ctgcatgagg ataaggaatc 360
 taactgagta aggaaaat 378

<210> 4698
 <211> 108
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-H7

 <400> 4698

 agcccacgcg tccggaaaag tttttgaata aagcagcaat gccgtcttat catcgtaaaa 60
 aaaaaaaaaa aaattaaaat aaaaaaaaaa aaaaattaaa aataataa 108

<210> 4699
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A10

 <400> 4699

 aattcccggc tcgacccacg acgtcaggga tttgttgtct cattcgagcg acgaatcaac 60
 ttgtagtgca gcaagacaag aaggaaatat ttcgtcgggt agattatcgc caactgcagt 120
 tgactctact tgttgttgta acaactggca acttgctcaa gtgtctgaac ctatcgctac 180
 ggttgaaaat attatatgcg atgatgaagc caagtcgatt ttacgagttt tggagcaact 240

ttctggcagc accactatgg aaggaagaac agataactct tttgaattgt cgagtacttt 300
 ggaagagaaa gttgtagaag atgaaaacaa gcaagccgat ggtgctccgt ctcccagtgt 360
 tgtg 364

<210> 4700
 <211> 195
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A11

<400> 4700

gacccacacg tcaattcttg actagataag tttagggagg agagagaatc atgaagtaga 60
 ggaggtgggg taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg 120
 aaaataagct taagctagtt tggctgggga agtaaagcct aagaaagagt aaattaggca 180
 agcaaaggca tgaga 195

<210> 4701
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-A6

<400> 4701

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 gttgtcaggc agaagcgaaa tggatgcttc cacagcagta tggaaaaata atcaacactg 120
 cctccatgtc agcacatatt gtgaatcatc ctcaaaaaca ggccgcctat aatgcagcca 180
 aagcaggtgt agtacaactt accagaactt tgggagcaga atgggctgat cgaggagtgc 240
 atgtcaattg catttcgcct gggttatatta atactcctat tacgaatact cctgccttga 300
 aaccggtcat ggactattgg attcgactaa ctccagccaa tcggttgggt gaagttgaag 360
 acttgcaagg tccagtagtg tttttagcaa gtgatgcttc tagttttatg tttggtggag 420
 aaattattcc tgacggaggc tttactcttt ggt 453

<210> 4702
 <211> 205

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B1
 <400> 4702
 aggtacaggt caggaattcc cgggccgacg tacaaatcaa agtcaacctg gcttgccctcc 60
 tgatgaaaac gggaagggaa ggaacgtttc caaaaacctt tgcgctcaac aagctcctcg 120
 ggcgaagaca tgttacgaag tttttccgcc tcctttccaa ccgggaaaac cttaatcccc 180
 aatggaccgg aacctgaaac ctttt 205

<210> 4703
 <211> 365
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B10
 <400> 4703
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 ttatctagtg ctatttggat acaaaccga ggaagaattg gaatatggag atattgtggg 120
 aactggtata gctagagtat cgttgtgata gcgtgttgta tcccgactcg aacaacttta 180
 catggcaata aaagcagttg ttcaaggaaa aaaaaaaaaa aaaaaataa aaaaaaaaaa 240
 aaggcggacg caccaaaaga atcaaacttt cgttagcatg catgctacgt catagactct 300
 tcaattctgt cacccaagtt caatttaatg gacgtccttt tacaacattt ttactgggaa 360
 aaccc 365

<210> 4704
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B11
 <400> 4704
 cccggctcga cccacacgtc agtgccaaag tgcagcaaca agtagatgaa gttacttccg 60
 ttatgaggtc caatatagac gaagcactaa atagagggga gcgactcgat gtgcttggtg 120
 acaaagcgga agatttacga ggcggtgccg gtcaatttca aaaatcttca acgcaactta 180

aacgaaactt ttgtaaacga aatatgaagg tcatcatttg cattgtaata gttgttcttc 240
 ttattgccct tgctatcatc cttggagtag tgttaacgca acgaaatagc agtagtagtg 300
 gaagccgtag tgggtgaaac actagtggca acacaacgag aattttatac ta 352

<210> 4705
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B6
 <400> 4705

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 tttggtgaat gcatatgcaa ggaaccagc attgaagcag cagttatttg gatacacgat 120
 attagggttt gcgttaacag aggcagtagg actgtttgca ttgatgatga gttttttgat 180
 actgttttca tagtatagga gaaacaagaa gtagaagaga aataaaagag acagaagagg 240
 agttatgaga gaaaagatgg aagtaataga agtggttaagt ggagtaataa tgaatcatat 300
 gaaagaacga atggagaata taaggaagga ttacatgaag gaggagataa tacgagaaat 360
 gataaggtgg atatatatat cgataataag tgtgatagta atatacagga cgagaaagag 420
 acgaaagacg tgtatgatgc 440

<210> 4706
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B7
 <400> 4706

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 tagttcatca tggttgagac aaaacttcaa gatggtgtta gtgcttctct ttggactgtt 120
 cgtctcttcc tctacacagt tatttttagca ttctctgcca ctatcattgg cttgaatgga 180
 cgtaaagcag acaacatatg gaacgacagc ttattctatg atgggaagta cattaacttt 240
 tgtgcttatt ctgcctcttc tggtgtagaa ggaggggacc atggagcgtg taaatatgtc 300
 atggcggttg cgtctataag tttgattcta gtctttttct tgtggctttt tacatttgta 360

gatgcgttgt atcctattct taccaagttt tggtttattg aattgggtat caacgtgttt 420
 caaacaatgt ggtggttggt tgg 443

<210> 4707
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-C2
 <400> 4707

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 ctactagcga gggaagcgag tcacctactt tgggcattgg acacttggaac agaattaaac 180
 ctttgaacac tgcacctgcg ttgggtgtct aagcgcttgg ttaatggaac tctccagaat 240
 atttgtttgc ggaagactat accgacgatc gtaaaaagtc ttggggagaa cagctcatgt 300
 attggacagg actttcttat ctgactggtg cagtgactgg tggttcgtat ggacacgtag 360
 aacgacttcg gtcatcacgt ggcacaagtt gggaactacg aattaatgct atattgaatg 420

ca 422

<210> 4708
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-C6
 <400> 4708

agaacaaact acaaaagaaa caacgaagat ggaacaaaa aggaaaatat catagaagac 60
 gtgggaagaa atgagctgca caatatttaa ttctgctta tgtacaaact tcatattaca 120
 tgattactag aaatgtttcc ttgaataaat tcttacgggt aatcccaaaa aaaaaaaaaa 180
 gaaaaaaaaa gaaaaaaaaa gaaaaaaaaa taaataaaaa gaaaaaaaaa aaaaaaaaaa 240
 aacaaacaaa aaaaaaaaaa aaaaggggcg gccgcccaaa aggttccaag cttacgtacc 300
 cttgaatgca acgtcaaagt ccttcaaaag tgtcacctaa tttcaatt 348

<210> 4709
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-C7

 <400> 4709

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 caacgttttg gttatagaga agtgtttctt tagtgtcatc aacactattt tggatgcacc 180
 tccttccaag tcgcttagtg aagcttctgt cgttcaagtt gcagagtatc ttctctactt 240
 gacaaacgct tctatttcct atcatagaaa taaagagtcc agcgatgttt atgaacaggt 300
 ggttcatgtt catgagagaa tttgttgccg tcttctcat gctattatag acg 353

<210> 4710
 <211> 377
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-046-Q1-E1-C9

<400> 4710

 tcccggctcg acccacacgt cagggcacaa aaggatagac aagaaacaga attggataaa 60
 gcctcggaga cttgtccttg tgttaagggt tgtggctact atggaacatc gtcgaccttg 120
 aatatgtgct ctaaagtcta cagagaacac caacgtcaag agcaacaagg acaaattggaa 180
 tcggttggtc cacaacacca gcttcaagaa gagtcgtag acaaagcaga agaccgtttg 240
 caaaatacta cggaccttaa acatgtagat ctccaacaag atacgtgtgt ctcagaagct 300
 ataacggggc agtcggagtt gcaattggaa gataccgctg gggcttccct tgaagcaa 360
 agcaagactt ccttttc 377

<210> 4711
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-D1

<400> 4711

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gaaccaattc tgttggtcca aacataggca ggtacccaat ttccaattgt ctttcattct 120

cagaaatact tcaagcgtca actagactat ctgcgttgct ttctagaata tggaaaaagt 180

tcttctcagc agtattagca tccacanaac tagactccat atcaatccag tctgattccg 240

tcttgcttct atctatatca ctgtccaagt tgctctgttg ttggtgtggt ggtgtaacag 300

acacgctacg cctatcgggt aaagcaactg taacgctctt taaaggctc ttgaacgttg 360

ggtctcccgga gatttgctgc aaagtaagag ataaactaag aactgcattc gtacgacttt 420

cttgagcaa aaaattttta c 441

<210> 4712

<211> 267

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D10

<400> 4712

aatgcccggc tcgaccaca agtcagagta tttggaatgc ctgaaaacca agtggttatt 60

ttaagaggag gattggagga ttggaagaaa catggctatc ctattgccag tagccacgat 120

gataatagtt ggatgccatc cgagaccaac aagacttttg ttgcacgata tcaaccacag 180

tttggtgccg attagttgct aataaaagag tatgtccagt ctccaagaga ttgtgtaata 240

ttggatgctc gttcctctgg tcgtttt 267

<210> 4713

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D12

<400> 4713

aattcccggc tcgaccaca agtcagcgcg tctggccgaa tgaaaactgc ggtccttggg 60

aagaacttta tggcattcac ttttttgatc aatatctgca gaggactgct cttcttcgag 120

gtaagtttga ttttcagtga tagataatag cagccgagga ataattcatt ttaggtgtaa 180

aacttgctga aaaacttggt tataacaata ttgccaaaca ttatcaaagg gcagcggaaa 240
acattactca agtattgccca tcctatatattg caaaggactt tggcatcggt tgggaatctg 300
tcaacactac tcacgacacc aatcatgaaa ccttttttga tacatcgact atcttgggaa 360
ttcttcattg atacaatcac gaagaagtat ttgcccccaa caatgaat 408

<210> 4714
<211> 442
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-D3
<400> 4714

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atcttcttct tagaatgaaa ttgagtatcg cgaatccgc tactggttgt cacaagcata 120
tataagtgga cgacgattga aaacttcatg cgttttttga caagagactg gtgcaagaag 180
tcacaggaga cgctctaaga tacgacttta acggatatat tttcaagatc atgggtggac 240
aagataagga aggattcgct atgagacaga gactcttgac cactggtcgt gtaagactct 300
tattaccgaa aggagactct ggttgcctag ggtactgtat gagagactgt gaaagaagac 360
gaaagatcgt tcgcggttgc attgtatctc catatatagc tgtggtgaac ctcatcattt 420
tgatgaaatg caattacgat at 442

<210> 4715
<211> 439
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-D5
<400> 4715

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ttggaacaaa atccatcgtc atgactagta caggaaggaa tattgcgaag aaaatacaac 120
ctcgagaaca aatggacggt gaaggagctc gtgtttttcg ttcgattggt actgcttccc 180
ttcgaaacct tgaccctttc ctcatgttgg atgagttccg tgtccaagca ccagcagggt 240
ttcctgacca tccacatcga ggggttgaga ctgtcactta tatgttggag gggtatttta 300

cgcacgacga taatcacgga cactcgggag ttatacggcc aggtgatgtt caatggatga 360
ctgcaggtag aggaataatt cacagcgaaa tgccatcatgg gaaacaagaa ggtcatgggt 420
tacagctttg ggtcaattt 439

<210> 4716
<211> 443
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-D9
<400> 4716

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cgcttgccctt caggtttgag aagtgtgcaa ctcgttccag agcaggaaga tgcgacaact 120
ttgcaactag gagaagactt ttcgagtga aaagcccagc cacttactat tagtgaagtt 180
tttattcttt tgtctcgaaa gagagatatg atgcgagagt tggaaggccc gagagcagat 240
gaattttcaa gtgtctttaa gaaatttttg gaatatgtag agcgctttga ccgttacaag 300
ggctcttgaag ctgcaaccaa cgtccgaaac ctggttgaac gatatgataa tttggatccc 360
tttgaaatgg cttggtttggc taatctttgc cctgcagatg tatgaattat gttagtttcg 420
agggttttaa ctgaagttgt tgt 443

<210> 4717
<211> 427
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-E11
<400> 4717

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actgcgctta agaagaaata tgttttcttg tattatagct atgaatttgt ctggtgatga 120
aaaggaacca gagatttcca atgttcgcct attttttctc cgtttattag tcggactttt 180
gtcaagcagt acacgagtcg accaagattt aaaagaagct tttgaaaaag aattcggagg 240
ggacaccaac ttttccctaa atcgctatgt gtgctggcga ctaggttacc aactggactt 300
gttggggaat tcacctagaa aacaattatt atatggctct atggccatgt tattcggttt 360

tacttgcgca agtaatctca ctctgatttt cggagcgctc tcctttctgg accctatgaa 420
tgctgga 427

<210> 4718
<211> 326
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E12

<400> 4718

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tgagtaactc ggacaacgca gagcttaggc caagttttcc tgtgccaagc ttggagaatc 120
ctgctaagaa aaagttaaat tcgtcaggaa gctaccttgt gattggaggt tgtttggcaa 180
ccgccgctgt attgtttggt ggtttgataa gttttcgccg tgggaactct cgcaactctc 240
aaatgtttat gcgtgctcgt gttctgacac aaggtgcaac cttggatgcg gtagcatgta 300
ctttctggag tgcaacaaat atgaaa 326

<210> 4719
<211> 415
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E5

<400> 4719

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ttcttgtcct cgacgcggat tggaggcctt ttcttccttg cgatcatatg gtatccaaaa 120
gtagggacgt acctctgaga ctaaaagaaa aggcggcaag gaaagaagca cagttgaaga 180
ccatgtctga taagccatcg agagccaaag atgaattggt acccgacgga agacataccg 240
aaagtagaat ttttacggaa aaaatcgcag aagcgtacca agttgcgggc atccatcacg 300
cctgggacag tcttgatcct catgtctggc cgcttccgat gaaggagggt tatctttctg 360
aaacagctca caggtagact aatattggtg acacgacctt ttgacttgaa tggcg 415

<210> 4720
<211> 448

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-E6
 <400> 4720
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 gctttttgtt ttgggggttg tttgggtgaa gatggcgcac tatcaacatt accgagctag 120
 tacagcgggt atagcttttg gagaagcact ttctgaactc aaggaacaga acctctttac 180
 ggaagcggaa gaagatgtga tttggaggaa gtttgaccgt gccatgacag aagcccttgc 240
 gtccaacgtt gtggatacac accttacgtt gaaagggagt cttcatcact atcgattctg 300
 tgataatgtg tggcaattct tcgtgaaaga cgcacaagtg aaatttgaca aaagttcgga 360
 ttttactccc gctgggtatc tgaaagtagt tgcttgtgat tatgtaaagc caaccaaccc 420
 aaagtctagt taattttgaa gcccaatc 448

<210> 4721
 <211> 196
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E7
 <400> 4721
 ggtactagtc aggaattccc gggccgaccc acgcgtccac ccacgcgtcc gcggacgcgt 60
 gggtttgatt ttctcttttg gagccgattt cgccgtcgtt gccaaggatt gaaatctga 120
 agaagtcctt ttctgaccaa aattgcattg tattttgaac ctttggataa taaaagccag 180
 gaacaattgg aacttc 196

<210> 4722
 <211> 462
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F1
 <400> 4722
 ccgggccgac ccacgcgtcc acatgaacat ttgttcatta gagattaaca cgcaagcaaa 60
 tgaaaggata tcaactttcc aaatcccttt aacatataga agccaaaggg agaagcctcc 120

cttgggtcaaa cctttaaggt acaagccaat tcacaaaggc atctttctgc agaagaagaa 180
 tggctattac ttaatcaatt agactggata aagtcgtggg gtttccggtt ctctgtggat 240
 atggagaaaa tgcctggaaa tagagtttgc ttagtacaag tgccatttca tgataaagca 300
 acgtttggag tggacgacgt attggaaatg atccatcagt tacgaacagg agaagcagtg 360
 aaccaacagc atattcgttt tcctagattg gaagcagcgt ttgcttctca agcttgctgc 420
 atgtctgtaa tgataggaac tccattagac cgctcgca tg 462

<210> 4723
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-F10
 <400> 4723

aattcccggc tgcaccaca cgtacggata aagagtaa atgtgttgca cgggtaccgt 60
 agcaaccgct tgctcgtctg gccagctggg cgtgtcattg tctctagcgt aagttagctc 120
 cgtctaacia gactaccaag ccaccttggg gtcgtcctga gtttgtatcg attggttaact 180
 caaatttact ttaaaaaatg tgacgcaagg acggttaggc tttcatcttt tcgttttttc 240
 gtctttgggt tttctgcta taacgcgggt ctcaagaaac ttagagtga tccgaaccaa 300
 acgagcgatg ttttctgtg acagatccat taggaagttg aaatggacag acgtcctttg 360
 gtccttccaa tgcccaacia tttgcaaaag agatccgctc atgcatagg acaaaacaac 420
 tagtactga g 431

<210> 4724
 <211> 302
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-F12
 <400> 4724

cggctcgacc cacacgtcag cccacgcgtc cgaagaggtg tatgatgcag gcaaagaagt 60
 gacacactag atcagagagt aacacatgca agtatgtaaa gcgaacgggt gagtaaagag 120
 gtgtgaaata gtgggagaac atgaaagcac agaagaatgt cagaaatggt tagagtaaaa 180

accatataag aagttttaagc gggaatctga gacgaggaaa gccacattgg gactgagaaa 240
 aggtccaaac aagagaagtc agcagtgggg aaaattgggc aatgtacatg gaagtatgac 300
 cc 302

<210> 4725
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-F4
 <400> 4725

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 actcaaatta aggtgagaga atggacgata acgaactaag caaaaggata tggtatctgc 120
 ggtagaacat atgaaagaag cagcaccgac tgttttagcaa aaacacagca ctctgcagaa 180
 aagagaacat gtaaagtata gagtgtgcgg cctgccaaat agtagagaag aaatcgatga 240
 aagtgaaagc gagtaaaaga tgaggatatag agaatggcgg tcctaacggt aaggatccaa 300
 aggtagcgaa gtaaatagac gtttgaaagg cgtccagtat gaaaggagaa acgagtgtag 360

cactgtctag tcgtccaact cagcgaaaca gcaataactg tgataatgca gtaaactagc 420
 actangacgg aaagacccca taat 444

<210> 4726
 <211> 316
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-F6
 <400> 4726

ttcccggggc gacccacgcg tcagctcaat tggaacaatt ttgtgaaatt attcgacctc 60
 atctaccatc tttgaaatcg acgcatatg ggaagcgtat ttatagtaag atagttaggc 120
 gatttccgga aagcagtagt tgacgatgaa atatatatat atatatatat atgatcgacg 180
 atatcgagaa tgtgtaggaa attgtattga ttagaaaaatg ctttgaatat tcaatttttt 240
 ttgttttgct gtaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300

aaaaaaaaa agaaaa

316

<210> 4727
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F8

<400> 4727

gaattcccg gccgaccac acgtcaggtt ttgggtgtgt gtccaccaa aggggaaga 60
tgcaaatatt cgtcaagaca cttactggca agaccattac tttggaagtt gagccttccg 120
acactattga aaacgtaaag tccacaatac aagacaagga gggaattcct cccgatcaac 180
agcgtttgat atttgcaggc aagcaattgg aagatggaag aactctatcg gactataata 240
tacaaaagga atctaccttg cacttgggtg tgagacttcg tggaggagct attccagaag 300
gagatcctac tcgcggggag aagatattca agacaaagtg tgcgcagtgt catacttatg 360
aaagtggcgg tattaacaaa caaggcccca acttgcacgg tctatttggg a 411

<210> 4728
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F9

<400> 4728

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gactgggaaa tagaacaagt gtccagtcaa tctgtgcaaa cactcttgtg ccaaatacag 120
agggtctgga tgagtcacta tcttctcaga atgttttgaa gcatctttcc ttgggagaga 180
atgtcgtctc gagttttgtg tgtagaaaga gcgtttcaac tcagaacaac tcaccctcga 240
ggtagtgacg ccacaaagga cgataagctt gtcatatgta gactagcttt ttgggaagaa 300
ttcgacaagt ttgtttcaaa atgtccttcc gtgaattttt gttcagctcg atgtggaaga 360
gacaagagag aacactttat ttcaaagcag agctagtact actgctgctg a 411

<210> 4729
<211> 436
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-046-Q1-E1-G2

<400> 4729

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gagcagggct atcttttggg gtacctgctt caattgcaaa cgcttgggtct gacctggatc 120
aattatgtag tggcaaggat agagcgctcc tgagtttgcc ccaagttttc aaaagttcca 180
aagacaaggg caatcttctc gctcgtcaag gacaaggttc tattgaagcc ccaggtaaag 240
ctgacagaat tgcaagacaa agagcaggac gtatccgtag tgtcgaagat gacgtcgtac 300
cagaggaacc caactttcta gcaaaggttc ccaaacggga gcgagatggg agagcagctt 360
ttcgtccttc aaagaagtca aaccggttct cnetcggagc cactttagaa gatgtccttc 420
tcaaaattcc gaacag 436

<210> 4730

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G5

<400> 4730

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atgcagtaaa ctagcagtag gacggaaaga ccccataatt cttgactaga taggtttagg 120
gaggagagag aatcatgaag tagaggaggt ggggtaagag atgaaagacc actgcatgag 180
gataaggaat ctaactgagt aaggaaaata agcttaagct agtttggctg gggaagtaaa 240
gcctaagaaa gagtaatta ggcaagcaaa ggcagtagag aagtataata gcagaagcat 300
gcttgaagaa aaagaaagag atttcagaaa gggaagaaaa gtcagctata gagaacaggt 360
gaaggagaac tcaaaaagag gagagcaccg aacgatcgaa gaagaaactt tgggggtaac 420
aggttaatgt ggtgtagag aacg 444

<210> 4731

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G6

<400> 4731

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caaagaaccg cacaaactct atgagtcata caccgcactt ttactgggca caacgcaaag 120
acaaactgtt tcttaccatc gacgttccca acgtggacaa aaaccaagtt tctattgagc 180
tcacagacga cggtaaactt agtttttaaag gtcgaggtgg agagttgcac gaaaaagcgg 240
actatgaact ccacttgga ctgttacatc ccatcaaggc agaggagtcc aagtattctg 300
tgacagctag aaatatacgg tttgttattg tgaaaaagga atcggggtcg tattgggaaa 360
ggttgttgaa acaaccgggg aagaacatct actgcaaagt ggactgggaa cactggaagg 420
acgaagactc cgaagatgaa ttcgac 446

<210> 4732

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G8

<400> 4732

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acgcagcact taccgcaaac cttttgaagg tgaaaacctt aacatccttt tttggtttta 120
ctctaggaga tttgatagcc cagtcccccg acatgttgtc aggggaagcct tgggattata 180
tgagaactgc ccggttttca gcttttggtt tgtgcataca cgggtccgatc gggcactatt 240
ggtatcagtt tttagatagg acggttatga ccaacgcgcc caagtccggg atcgagttg 300
ccactaagac agcaatagat cagcttcttt gggcgccaat atttacttcc atatttttct 360
cctttatgaa aactgtggac ggccaccctg atcaggtagt acatgaagtg aagacaaagt 420
tgtggccaaa ca 432

<210> 4733

<211> 253

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H6

<400> 4733

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ccacgcgtcc gcccacgcgt ccgcccacgc gtccggagcg agaaggtgga tagtcgagag 120
ggaaaaagcc cagaagccaa gataaggtat caaagtaaag aaagaaggaa aaggagaaga 180
agagagggtta cgcttagaag cagcaaacca gagaggaaag cgtaaagca tgaaagaaaa 240
gaaatccgaa aaa 253

<210> 4734

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H7

<400> 4734

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gcccacgcgt ccggaatta ttagaacgac agaaagaagg caaagaaaaa ttaagacaat 120
tgggaaaagt tcgtctgtca ccggaagctt ttgcagcagt agttgctcag aaattttaag 180
acaagaaact ttattcttat aagaatcttt ttgatatttt cagggatgta tagcagcaat 240
gtccttatta ctagacctga ggataggtcg aagaggccgt ggatacattg gtcgtgttca 300
acttggtttg actttgtgga ctcaacgata gtcttacgtg tatccctgcc tttgaatatt 360
tataaactat taggagtaaa agcatcagag aaccaatcaa ggataaccaa gcaaagtcta 420
ctgatactgg agtattgaca ct 442

<210> 4735

<211> 357

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H8

<400> 4735

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accatatgga gaattataag aagacagaag ttttgggaga aggtacttat ggaaaggtgt 120
ataaagctca agatattaga acaaacgaaa ttgttgact gaaaaagacc cttttggtta 180

acgaagacga aggcgtcccc gcaactactc tgagagaagt gtctatctta agagcacttt 240
cagattgtcc ctacatcgta aaactatctg acgttcttca cactgcatcc agaaatggta 300
aacctgtggt gtacttggtta tttgaatact tggaacacga tctcaagcac tatatga 357

<210> 4736
<211> 357
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-H9
<400> 4736

aatgccccggg tcgaccacaca cgtcagccca cgcgtccgcc cagcgtccg cgccaaaagc 60
tggaagtgag cgcttcgctg atcctgattg cgagcactaa ctgtttgtag cttttttacc 120
gtcatgtgga actgttgagg ctatgtgggg ctcagaattg caaattatgg aagaagaagg 180
tgatgaagac ggctactcga cacctacttc gcaaacaata agagtctatc cagataggcc 240
acccccacct cctagaaaga agaggtataa gaagtcccgt aggatgggca agaacttgga 300
gattggagat agtgagttgc agtgaagac tctccttgat tcggacttgt ctgtttc 357

<210> 4737
<211> 412
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-047-Q1-E1-A4
<400> 4737

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ggcactgtgc acaatcagac tgtagacaat actgttgaag aatattgac atgtaatgaa 120
agtcattcta tcattgacac ggaatttgac catcctttta gaccattacc gaggatagag 180
ggacattacg atggcctgct gccaaagtac gaggtctctc gaatagacct gactaatgt 240
cgtggaaca ctctgtagtc atccgtctca agttttgac aaataggttt atccaacgtg 300
ttgttgaca gactagtctc tacgacctat cctagccta gtatgtcata tgtaacttca 360
ctgtcacgca ctggtccaca cgcatccaat atcttaatca gtcaagcata ga 412

<210> 4738
<211> 402
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-B11

<400> 4738

accacgcgt cagcccacgc gtccgtacaa atttggtcac gttccttgtc gttggtagac 60
ttgcaacatt ctatgcaaag aaacaacttt cggcatgcgt ttcagttatt cctaaagtaa 120
agtactgtgg agaatgtaga ccttgctgta aaaagtttag ttacaacctg gtgaaacggt 180
ccattcggtt ctatggttgt tccagtggac cgtcctgttc ggaaaccaca gggcgtctcg 240
ctacgaaatc ttttgaagta aatcagagtg aaccaatatt tattaccga gtcaaggaac 300
ttgctgaaga atctgccctt gagttgagct taactattca aagcgttcgt tggaccggtg 360
ggaaactagt agtacatatt ggtcacgccc acgcagagag ga 402

<210> 4739
<211> 422
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-047-Q1-E1-B4

<400> 4739

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tgccgtaagg gcaaccttac atggtgtctc ggcagcattt ggcaaagctg gtgctgccat 120
tggaacacaa gtattcaatc cactgaagaa gataagtcca gtgaatggac cacgtgctgt 180
gttcattttc tgtggtggtc tctcctttat tggagctatc ttgacttata tttgcatccc 240
tgataacaag aagaagccat tggaggttct cgatatggag tttgaaagggt attgtctgga 300
gcacggcgtg gaattgaagt acttgcaacc atcccattat tcaaagtact ttacttcgag 360
tgactctgat gagaaagctc gcatgaatga gaatgaaaca gaagataagg gtantgttgc 420
cg 422

<210> 4740
<211> 421

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-C10
 <400> 4740
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 cccaagcgat gaccgtacaa gtcaccgaca ctttggaaaa gaaagccact ttatatcaac 120
 aactttgtga agctggagtg gatgaggatt ccgagtatat ggtagatttt gaacgcaagt 180
 atttggataa tgaagaacaa ccaccaactc aagtatcgga ttggatgggtt gagtggaaag 240
 tggcagattc gaaacaaagt gacgaaaacc catcatcgga tgcatttcct tgtcatatat 300
 taccaccattc ggatatggaa acctatagaa agttgggtgc ggaagagtgg aatcgtctcg 360
 tagatacaac cttgtggtgg aagaaacatg gttttctatt tggcgggtatt cctaaagaac 420
 a 421

<210> 4741
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-C7
 <400> 4741
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 ttccagtcaa gtgctgtatt gagtgtcat cttgctacca gcaagtatct caacaagttc 120
 ctcaacaagt tcctcaacaa gtgtctcaac aagcacctca aacacaacaa gtctcatctc 180
 agtctgctta ttaagtgaag ttgtagggtc aagggtccca acaattcaga ataaacttgt 240
 gttttggcta acaaaaaagg aatcaatcaa aaaaaattca aaataaaaag ccactgggaa 300
 aaagaataaa ttggtgtttt gagcaataaa atgaaagca 339

<210> 4742
 <211> 301
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D5
 <400> 4742

ggtacaggta acgaattccc gggctcgacc cacgcgtaag cccacgcgtc cgcgatatta 60
 gtctcgactt ttctggagct ccagagtgga gagtgtcaag gagctgaaca aaattatcac 120
 aggctttctt gtgcataact atgatcgctt cgtttttcaa acgagcgata gtgactggca 180
 agtccgtgaa gttcgtatct tcattgctct gcagcgaaaa agaattgcttc gagttctact 240
 ttgtatgtat caacaactct ttgatttggg tgatgacaaa agctctcccc tcggaatggg 300
 t 301

<210> 4743
 <211> 197
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-D7
 <400> 4743

cgaccacac gtaagccac gcgtccgagg acgcgtggga aaaaaaaca aaaaaaata 60
 aaataaaaaa aatcaaaaaa aagaaaataa acaaagaaaa gaaaataggg cggcctccca 120
 aaaggatcca accttacata catgtgcatg cgacttcata actcttctat attctcacct 180
 aaattcaatt gactagt 197

<210> 4744
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-D8
 <400> 4744

aattcccggc tcgaccacg cgtacgtctg ttttcaagtt tatgtacgca aactatgaca 60
 accaaggaaa ttgcatacct tgaaaagaga tgcaagatc tttggatttt ttctggagag 120
 tcctaaactg gactcagtga aagctgccac tgttcagcag aggcttgtga acaacaact 180
 ctggccgtct acagaaatct tggactgtat ttgcagttat tcaacaagca acagactacg 240
 agtttgcgt tcttgtggca cgaaaaagct tcacgttaca atcacgtatt catcgtgagc 300
 acagaaacta actaacgcag ttgagaatgt cttatttttg ggctacagta gaagccggct 360
 tcggaccgag cttcgaagag caagactgtg attacaatca aaggaaca 408

<210> 4745
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-047-Q1-E1-E4

 <400> 4745

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tgcaaaagtt tcaaaagaag atgtgttang agaaattggc accggttata aaattgccat 120
agaatccctg aacgaaggta gaattggaat angagctcaa atgattggac ttgcccgaagg 180
tgcaatggat attatatttc catatctaca tgagaggaaa cagtttggct cccgtatcgg 240
tgattttcaa ggagtccagt ttcagtatgc acaagctcga gttgaattag aagcagcgcg 300
agcgcttggt tacaacgctg ctcgtatgaa tgatgcaggt atatctattc cgaaagaagc 360
agcctttcgc aaatactaca gtgcccgaag tgccgaaaga attgcttcca aat 413
  
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<210> 4746
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-E7

 <400> 4746

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aggagaagca acaagctgaa gaagcacaaa tcaacgagga tccttcgggt gttcttcagg 120
gattacaacc aactcagcaa actccgatgc ttggatatgg aggaagacct tttggaaatg 180
gaccttctgg atatccacaa actggccttt taagtttgcc tcctgcacca ggtacctttc 240
agtgaacggt gttagtattc atcctgttgt tggaaagacg atgggaaaag gtttttgttg 300
aataaactag ttgttttgtt tgtgaaaaaa agaaagaatg aaaggaagtt atggca 356
  
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<210> 4747
 <211> 404
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-E9

<400> 4747

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aaaaaggtac gtggacatgg tgatgatgct gatggttggt atgtgggtaa tttcttagaa 120
ataggaaaac tgttcaacaa caaacaata ttaactgccc agttgagaga aaacgaacta 180
gtgaaaacgg aagttgattt gttggacgag tcatcgacga tatacaagtt ggtgggtcct 240
gtgatggtaa cccaagtaag tatgcatcca tcgataacta caaagacttg tgagtgtgtg 300
agtgtgttta ggattatgca gaagtgaata atacggtggc cagtcgcacg gattacctga 360
aaacagagct ggaaaaagtg gataggaaat tggaaagttt ggaa 404

<210> 4748

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F10

<400> 4748

gacccacgcg tcaggtttct tcaatgggtc cgggttgggt cccgttcctt gggtgattgt 60
accggaaatc tatccctggt acgttcgttc gcaatgtctc acgttgaact cgtttgcacg 120
ctacatgctg aatttcgtcg tttctttttc gtggccaacg atgctcaagt cgatgcatgc 180
acaaggcgcg tatagttttt ttgcaggctt tacgttggtt tccacttgct ttatctatct 240
gtttgttctt gaaaccaaag gcgtggaaat ggaagccatt caagaattgt ttcaatatcc 300
attgtatact attgcaaaga agaatgtgag tgaaaccaa gcgtatatga gcaaggtttc 360
ttggtttctg cgatgggttg gaggtaatgg cggtagagca gagaagacat ttgaaaaaga 420
cag 423

<210> 4749

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F11

<400> 4749

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agttcgaaaag aagttcctcg agcggaatct atagtagatg ccatatcgga taatggtttc 120
aatcaagttt atattattgg aggggggtcct atcgacggaa cgctgaaagc ttcgcaacaa 180
atattcgaag agataaaaag aaggaagatg aaatgcagtt tagcagtaat accaaaaacg 240
atagataatg acataatgcg aattcagcga tcctttgggtt tcgagacttc cattgaagca 300
gcagcacagt ccttacgtag tatacattgt gaggttcat gttcttacca tgctgtggca 360
gtgatacaag tacctggaag aaatagcggc ttttttgagc tggagacagc tttggcttct 420
cgtttagtcg atgc 434

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<210>      4750
<211>      201
<212>      DNA
<213>      Cyanidium caldarium

<223>      Clone ID: LIB190-047-Q1-E1-F12

<400>      4750

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ccaacgcgtc cggaatttg cgcggcccgga agttttgagg tgtaattgga aattttggta 60
tttaaccgca atagtagtaa acgaattttg gaaaatggtg cgaataaaca ctgtcaactt 120
gttgtaacaa gatgaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa a
201

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<210>      4751
<211>      396
<212>      DNA
<213>      Cyanidium caldarium

<223>      Clone ID: LIB190-047-Q1-E1-F8

<400>      4751

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taaaacatgt ctgacgatat tggtgccttg gttattgaca atggctcggg tatggtgaaa 120
gcaggagttg caggggacga tgctcctcgt tccgtcttcc cttccatcgt aggtcgacca 180
agacaccaag ctattatggt tggatatgga caaaaggaaa gttatgtggg tgatgaggct 240
cagtctcgaa ggggtatact ctctttaaaa tacccaatag aacacggtat tgtcactaat 300

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tgggatgata tggaaaagat atggcaccat actttctaca atgaacttcg aattgcacct 360
gaagagcatc cagtcctggt gaccgaagct cctctc 396

<210> 4752
<211> 422
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G12

<400> 4752

cccacgcgtc aggggtcaatt gtgtatcaag aagccttggc caggtatddd ccgaacgata 60
ttgcataatc atgaaagata tgagaaggct tattttgccg agtttcccgg gtattatgta 120
tccggtgatg gatgtcgtag agatgccgac ggtctttatt ttgtaactgg acgttttagat 180
gatgtgatca atgtaagtgg acatcgcatt ggaacagcag aagtagagtc tgcgttgatt 240
ggaaatcggt cggcggcaga agcagcgggt gttcctattc ctacgaatt gaaagggtcaa 300
ggaattgttg cattttgtgat tctgaaacaa ggaatcccgg caactgctga actggaagaa 360
gaaatgaaaa agacagttcg agtaaatatc ggacctattg cagttcctga acgagtatat 420
tt 422

<210> 4753
<211> 321
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G5

<400> 4753

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tgtttcttat ccactcgtac tgcagttttt gacacttggc tagtcgtaaa ttcgggcctc 120
tgtcgtttga ccttattcac ggaagagttc tttattctat tcggtcacct accaacttta 180
ctcgtattgt aaatagtaag aatgcgatgc gtcgtgatca tattattctt gccgtagagc 240
agtctttgtt aggagagttg tgacgtgcag ttggatgcaa tggtttgtct tttttaaata 300
aagtatgtat ttgttccaaa a 321

<210> 4754

<211> 429
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-G6

 <400> 4754

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 aaaaaaaaaa aaaaaagaaa gaaaaacaaa aagaagggcg gccgatctac acgttcaagc 120
 catatctaag ctcgatatac atgtcatata tcttcaattc agtcaccgac gttcaattca 180
 ctggccatcg ttaaacaact tccttactgg aaaatacctg ccttgacca aattaaccgc 240
 cctgcagcag atctcccttt caccaggtgg ggtactatcg aacatgccaa cacttatcca 300
 ccttcacaac agtttcgcac cctcaatgtc gaatgggatt caccctgtag cgtctcatta 360
 atccccgcag ctttactggt taacctcaga gtgacctata cacttgccat ttcctatcg 420
 tccgttcct 429

<210> 4755
 <211> 312
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G8

 <400> 4755

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 agctgcaggt tttggaagtg cttcagcgga ccatcgtaaa agagaaaaaa ttttaatttc 120
 taaaattcac gagcgcaatg ccaaaattga ggcgttgga agtgaactaa agcaactgaa 180
 aggggaaatt ccagcttcta caggatgatcc agttcaagat tggttgaatc aattggaata 240
 agatgtatat gttacaagta ccttgtggaa gagagagata gtcatttgaa taaaattagt 300
 tcttttccca ac 312

<210> 4756
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G9

<400> 4756

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gacaaacatt ttacagacga aaatttcaga gaacaaaaat atgaaaacac aattggaaga 120
gaaggatgct atgttatata acttacagat ggagacgaaa atgaaggatg ttcacaaaga 180
acagaataac aaggacgcca gtaacagttt cttggctatt catggtgact caccggtttt 240
gaacagactt cgcaagaaaa tagcggataa tcaagaaact tcgggcttcc agaagaagaa 300
ctgggtgtaa aggtcgagta gtagagtaag tgtaaaaggg aaaggaaagg agagaaagag 360
gaaagggatg aaatgcagag atctctagag aaaggcaaga aagaaaagaa aggaagacac 420
agtaaagatg gcgaga 436

<210> 4757

<211> 380

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-047-Q1-E1-H1

<400> 4757

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aggagtggag taaacagaaa aggaagtaaa aggaggaat gaagggaagt tatggcaaaa 120
acacgtgcca gcagcagcgg taaaacgtgt gtagcaagcg tagagcagaa gaactgggtg 180
taaaggtcga gtagtagagt aagtgtaaaa gggaaaggaa aggagagaaa gaggaaaggg 240
atgaaatgca gagatctcta gagaaaggca agaaagaaaa gaaaggaaga cacagtaaat 300
gaggcgagaa agcatangaa gtgaaacgga ttaagaaccc gtgtagtcta tgtagtaaaa 360
gaaagaatga gtaacaaaaa 380

<210> 4758

<211> 407

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H11

<400> 4758

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ttgtcgagga atatcttttc ttttccatga aaagatggaa aatgcgattt cctatgatcc 120
 attaggaaca tcctctttctt ctctctgacc tcatgccacc accacattaa tgctatatcc 180
 tcagcaagtc aatgggtctat atcaacaatc cgtatcattg tgtgagacca tcgacgacaa 240
 agaacccgag tcgcaatgcc gtacatttca aacgagtctg gtggcaaaca atttttttgg 300
 caacatcata ttgtccactt gtctcatcgg ggcaacctct ggcaattcgt ttggaagcaa 360
 cttgaatatc ccaccttata acagtaccaa gggaatagat ggctatc 407

<210> 4759
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H6

<400> 4759
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 gctttgtgaa tagcagattt gtgagccttt acaaagtttc tcactttggc tgtcacaaga 180
 gctttattca agtctttcct cgtagtggtc gtctactgcg ccatcaacaa ccggttcagc 240
 tgttttgctg tcaaaaaggt ttccaaagcg tatccagtca gtactttttc aatagaagag 300
 aactgttcaa agctttattg gttgcttctg ttgcgccctt tgtgtctgtt tttcctgcaa 360
 aagcaagcca caactttaag cttactggac agtatgaaca agacgtccgt aatatgatag 420
 aaag 424

<210> 4760
 <211> 417
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H9

<400> 4760
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 tgtagcactg tctagtcgtc caactcagcg aaacagcaat aactgtgaaa atgcagtaaa 180

ctagcagtag gacggaaaga ccccataatt cttgactaga taggtttagg gaggagagag 240
aatcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga aaagaagaga 300
aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa attaacgtga 360
gagaatggac gataaggaac tacgcaaaat gatatgggtat ctgcggtaga acatatg 417

<210> 4761
<211> 454
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-A4
<400> 4761

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gactccattt atgatgagcc tggatcacat ttggtagaaa atattatgaa agaagccaaa 120
gaaagaaatg taaagataca ttttccagta gattttgtag tagccgatcg catggctccc 180
gatgcacata cagagatacg taccagagaa caaggtattc ctgagcatat gcaaggactg 240
gattgtggac cacaaagtat tcaacaattt attcaagtag tgcaacattg taatacaata 300
gtgtggaatg gacctttggg tgtgtttgaa atggatatat ttgctcaagg aactcgtcaa 360
gtaatggaag cacttgccaa tgccaataat attagtacta ttggaggtgg agatacagca 420
actgctgctg ccaagtttgg actgggagaa aaga 454

<210> 4762
<211> 430
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-A5
<400> 4762

gggtcgactc acgcgtccat ggctcattct ttgttttgtt gtgtccaagt gagtgtgggg 60
tttggcattg gacactatat ggcaagaagc gacgacgaat acgactattt gttcaaaatt 120
gttcttattg gagattccgg ggtcggcaag tcaaaccctt tctcgcggtt tactcgcaac 180
gagtttaacc tcgagtccaa gtccacgatt ggggtagaat ttgcgacgaa aagtgtccaa 240
accgaaggga agacaataaa agcacaataa tgggacactg ctggtcaaga acggtaccgt 300

gctatcacct ctgcgtatta tcgagggtgcc gttggagcac ttctcgtata cgatatctcg 360
aagaaggaat cctttattgg tgtagaaaaa tggctaaaag agcttcgtga tcacgcggat 420
agtaatatag 430

<210> 4763
<211> 237
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-A6
<400> 4763

ccgggtcgac tcacacgtcc gaagaagatt cctccaacat gtgcaatgag tgtccctggt 60
gcacgcgaga ctgcattcac catgggtgac aacgagtcca aaacaaacaa gtcagagtca 120
tattccacct aaatttaca tgctcttagg caaatgcatt cggcataccg ccatgatcca 180
ccaacgcgat tagcatccag aacaccctgg agacctacac atttgacgt actgcca 237

<210> 4764
<211> 384
<212> DNA
<213> Cyanidium-caldarium

<223> Clone ID: LIB190-048-Q1-E1-A8

<400> 4764
ccgggtcgac ccacgacgtc cgaccatgcg tcgggggttta gattggcgag ttcaagatcc 60
taatccacat tcctagttaa agtttctgag agatgtcgta gaggaaacct ttgccccatcg 120
tcattttgaa aacggttcta aaatagttac acaacaggag attcatcatt gcactttact 180
tgttgaaatt tgcttgacc attgttcgat acattatgaa cagctacgtt ttacgcgttt 240
aactagaatg ctatcttgca atcggtgtgc gcattgtgtt ctataccatc atctttgtcg 300
atatagagat atggatggat tccttcataa gttgaatcat caattggaca tcattacaga 360
tgacttgcca gaatgtatga acaa 384

<210> 4765
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B11

<400> 4765

ggtcgacgga cgcgtccgac cacgagtcg cggacgcgtg ggcatgatt cgatgcggca 60
caagacagtt gtggtggcaa ctgcgcgtc gttatcatat aactactact gtccatagag 120
tagcagcaga cgaagaaaag gaatctgtcg gtataaagcc taaacgtttg catcagcctc 180
ttggagttta tccacaagga accaatctgg aagaagttag agaaaagtgg caaagtgcg 240
ctatggaact tatctcgaaa gtacctccga tagtagtcca tggctatgtc atagcgtgta 300
atggaggccg cggtcatta ggacatccaa tagaatatat tcgtttggaa gcaccttacc 360
cttcaacttg caaatattgt ggtttgcgat atatcaacaa agacactttt g 411

<210> 4766

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B12

<400> 4766

acgcacgcgt ccggtcttca gtggtgagcg gatatgtctc tgacagacat cctgtattgg 60
gtggaccag tagtttggag caaacgcttt gacctccac tatctgttac ttgcttcttt 120
atatatttca tagtatttca tatagcttgt gccttctttg gtattgctga ctattggaag 180
cttctgcgca agtacaagct gcacgaaagt gacgagaaga cctacctgca gttgctgcca 240
agagttgtgt tcaatcaact ggcgtttttac ttgactagtt gctacatagg agagaaaatg 300
ggttgatat tcagaacccc ttctaaagac aatgctttcc aactctggaa gttgcctacc 360
tatcttactt tgtactcttt ctatcatgan attatatttt actctgctca tcgttggtcg 420
ttgcac 426

<210> 4767

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B2

<400> 4767

gtcaagaatt tacgggtcga cgcacgcgtc caatcagcaa ttggaagaaa ctatcaactt 60
taaaaaacgt aaacttacaa aacctgcagg aataacaaaa caaacaagtt tacatgtatg 120
gggtgcaaata gagaacaagt tggcagaccg taaagagctg ttaccagtcg ctcagttctt 180
atgtcaacgg gactgctctc tgtcaccctt tatcgcagaa tacggattac ctcagtttga 240
aagacagtcc gttttcccga gtcttatgaa ggccatcggt tcgcagcaat tgagtgggaa 300
ggcagcgaaa gctatcatgc anagactaca agtgctgctg caagat 346

<210> 4768

<211> 304

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B5

<400> 4768

cccggtcga cccacacgtc caatcaaccg ccagtattga caaccctatc acagtacagc 60
tcctctgag gaatctcagt gcctgactga tttcggcgta cggcaatgtt actgttgact 120
~~tgtctcggtc cagtaccttg aaagatagtt ctgcactgaa ccttcgctac aggaacgtta 180~~
agttagcctg tttcatggat acatgtctta gttttacgac acttatcctt tgtcaatact 240
ggtaatcatg tattctgtag gcgctcggac ttgaatgaaa tcgaaacatt ggagtcgtgc 300
tttt 304

<210> 4769

<211> 267

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B6

<400> 4769

cccacacgtc caaacaagcg ccagtattga catccctgtg acggtacgta taattccggc 60
gcgtctcagt gcctgtctgg attcggcttt cggcaatgtt actggtaact tgtcggggta 120
ctgtaccttg aaggacagat ttgcactgat ccttcgagac aggaacgtta agctggcgtg 180
tttcatggat gacatgtttt tagttttatg acacttatcc ctagttactt cagtcgaacg 240

tgtattctgt aggcgctcgg acttgct

267

<210> 4770
<211> 432
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B8

<400> 4770

acccacacgt ccaatggaat ttggtttcct tttggacatt tagaacgcgc ctttcgtacc 60
gattggccga tacaaggta tccctatact tatggatata ctagtttgag atatgcaagt 120
caatgttcca gtggaacttt tcgtcaacag tttgcaaggc ataagttggg agggctacat 180
atatccaatt attgcttccc tccctttggt atcttaaagg aactaacagg aacggaatat 240
ggaaacgaaa ctcttcaaaa tatgacaaag gaacagtgtc aacaacttgt ccacgactgc 300
caaggccact cttttggaag aactgttcct ttagaccaag tcccagaaga agacttggat 360
gcagtgtata ttccttggtt tgtcaagtgt aaccctaaaa gatatccatc gttgatgcat 420
caagtggatc tt 432

<210> 4771
<211> 382
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-C10

<400> 4771

gtgtttgggc ggtggaaaac agagacagac gatggaggaa gaagatacga gttggagcac 60
aatattatagg caatgtatag atacattgtt ttctcgttgg acggcacttg gtttggctct 120
ggaccattgg aataggccag cagaggagtg tcgacaactg gtagacgcgc ttcaacaagc 180
catcctacaa gcagctcaag acaaccaact ttgtacagat ttcttggaga ctttatttga 240
agaaactttt gatattcttc aagtggatat agaggatgga agcatagaag aggttgcttc 300
tttgctatgt actatgtttc aagactgtct ccaacgcaac acggaatcgt tgaccaggtc 360
tccgaagcct agatcgacaa ta 382

<210> 4772
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-C2

<400> 4772

 gtcaagaatt cacgggtcga cgcacgcgtc cgaccacgcg tccgcccacg cgtccgcaaa 60
 cctcaagtgg atcatccac gttggttaaag atagacttgt ctcaaggcag ctttaaagta 120
 ctccaagact gtgacagaga tttagaatgt gatcataata ccaagtttca gttggaactt 180
 attcagtatg gtctcttttc acctggtttt tggacgagag aaaatgttct gctcttctat 240
 ttggagctcg tgtcaggtgt attcataagg gacactctct accttttcta caacanaggt 300
 gaaaaacatt tgtttgcgat ttaaagtctg tttttggaga cacaagttcc actgtatgca 360
 gacataaaac caaactggaa gaaccaacac tttaccgttg gcctcaccgt caggtctttg 420
 tgtaaggaat atcaacgaca gtattc 446

<210> 4773
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-C4

<400> 4773

 ggtcgacgca cgcgtccgaa atatagaaga gcagcttcaa agtatccttg aggagaaacc 60
 tcctgtcggt acttttacgt ttggattggt accttcagat tggttgaaa ggtttcactc 120
 aaacgacatg ctcggtgggtg gcacgtgtac cacagttgaa gaagcgaagc aactcgagtc 180
 gttaggcggt gactttatct cagttcaggg agcagaagct ggtggacacc gaggaagttt 240
 tatttttcat ccaccgcatt caacagccaa acgttggttct tctatcccgc tcgaaacctg 300
 tttgttggac tgcttatctg cagtaaaact gcctttgata ccagcaggag gtataacaat 360
 tggaatacaa attcgggtcaa tttaaaataa aggcccaatt ggtgtacaac taggcacggt 420
 at 422

<210> 4774

<211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-C6

 <400> 4774

 ccgggtcgac ccaaacgtcc agaggattcg aggagagaga cagacagatg gccaacgctg 60
 gtcaagatgg ccttgtgcaa gtcaacaaac atagaaaagt aaagagattg caagaagata 120
 atattttgaa tagagcacta tcacaaccag gagatgtatt tctgtgcttt tgcaacatcc 180
 agttgttggg gaatgcagaa agagctatta taggaaatat tacttgtcca gaaagtatcg 240
 aattgtgtcg tctattagct ggacatatag cggtttggtt cgatgaacat ttggatgact 300
 ttcgtttgga agctatcttg ggagcactat tgtgtacttg ttattgtgag tggaagcggt 360
 ttgaaggaga attgggggta caagaatgga atgaattgga gaagata 407.

<210> 4775
 <211> 229
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-D1

<400> 4775

 gcgtccgagg gttactcagc aagaatgcc a gtacgtccaa gagtcgtatt gtgtcgagta 60
 tgaagaatgt cagcaagtta cccaggaagt ttctccttca gaaattgtct actacgggtga 120
 atcttcttct agcagtagtt actactacta gaacacttgt gaaatgcgca aagtcgcaaa 180
 gtagagtgtt cctttttgaa taaactgtta ctttttgtca aaaaccaac 229

<210> 4776
 <211> 350
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-D3

<400> 4776

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 actaccgaac gatattccat tgtacatgac tgaaagtaca gtanaaagtt gatatgaaaa 120

ctgttgcttc ccttcanacg attaccttta gtgtcattgt ctctcaatgg gaacacattc 180
 cccgacagtg tatacagaga ctcccgaaag aactcttgac tatgctggta gaaaggttca 240
 caagggagaa gaaactgtcc tttggggttc tcaagtgggt ggaggggaagt gagtttcagt 300
 ttctcaattt gagcgggtcaa ggtggaaaag tgaacgatga atggatgact 350

<210> 4777
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-D5
 <400> 4777

gacccacacg tccacccacg cgtccgggtt ggaatgtttg aaaagcttgt tcgactcaac 60
 tatggtggat attggttgaa gaatatcgga attagtccat attggaactt tcacttggtt 120
 ccacaactaa ggcttgcaga tggaatcaat gtgccagtat tgccaaactt gcaagacctg 180
 ctgcctacag ttctgaaaat ggctggacac tccaaatggc acaatttcac gcgtaagtac 240
 atcttgttcc tatgacagtg tgagagtata aaggtcctgt tttagaccag acggcacgtt 300
 cagattcgaa gcgttcacat aatatttcaa agatatctag aagtattaga tctgcag 357

<210> 4778
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-E1
 <400> 4778

attcacgggt cgaccgcacg cgtccgattg tgaggtggaa caggaagtgg tagtggaata 60
 tgtgatccta aacgttccaa cgtgggttgaa taaaaaggac ttgacgaaag ctttggttaa 120
 agcatgcgtg aagtttgagt cagtgaaaaa gttgcacgga tggaactaca gttttatttc 180
 gtttcgctca gagcaagatg caagtgaagc gaaagttctt ttggaatctc agaaaatcaa 240
 aggttttcac tgtgttttgg aacaatggcg caatgttaac aagaaaagga aacacaagga 300
 gtgtttacaa atagttgacg atagaatgaa acaagtcaag tgttcttcca cgagttaaga 360
 atttgaaaa agattgaaaa agactgttgc tg 392

<210> 4779
 <211> 201
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-E4

 <400> 4779

 gcgtccaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc gaatcagggt 60
 aagaggtana ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 120
 gggaagtaaa aggtaagaaa gaggaaggt ttacgagaga aggaagtaga aagaagagag 180
 tgtaaggcgg cgtcataata g 201

<210> 4780
 <211> 221
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-E9

 <400> 4780

gagaagagag aatgctgggt ggagtagcga aacatgagaa tggaagtaca aggtaagaaa 60
 gaggaacgt ttacgagaga acgaagtaca aagaagagag tgtaatgcgg cgtcataata 120
 taaatccgaa aggagtagaa gacagcattg tggaccacta ccaaacatc gacggaattc 180
 tcatacagca cgcgtgctct catgccacct ttaaaggga c 221

<210> 4781
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-F1

 <400> 4781

 aattcgcggg tcgacgcacg cgtccgacca cgagtccgag aggaccctac ttgcaagcac 60
 acgctcgtgg acacgaacat ggtttctaca atgactgaag aacaacaagc ggtcaatca 120
 acggtgcgtg ctcgaaacaa cgattctgtt gacgaagagt tgggtttgaa ggaccttcct 180

cccaattctt ttgtgaggcg ctactcgat ggaaacatgg gaggaatgtc acaggaatac 240
 caccacactg ccaagcaagt gatgaacttg ggacatcccg aagcaactggg attggctggg 300
 tttgcttcaa cagactttat gttgagttgt atcaacgcaa atttgttacc cagcagcatg 360
 acaaat 366

<210> 4782
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-F11
 <400> 4782

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 tgacagtagt tgagttctaa acgacccaac tgagtatcag caaccaaacc caaacctaca 120
 gatattcgtg ttgtttcaaa caaattcttc caaggagctt ttcttgtaaa cacttggcca 180
 agtacagatt gagactcctt cacagacgaa atatctcaa ttgtagcaaa aatatgagct 240
 ctaggttgaa ataaattacc taatactcct tttactccca gtggaatact aagagaactg 300
 aagatggtat agaacaattc tcttcccaag ggatcttctt tctcccatgg cctactcct 360
 cgagtttgaa aacctcgaaa actattagga ccacctaact aaaaacgatc canaacagtt 420
 gaagaat 427

<210> 4783
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-F5
 <400> 4783

accacacagt ccagatatcc atgctgatac gggatcccag tacgtgacga cttacgatca 60
 gtaacgatag attatcatga tgaatatagg gagtaaatta agaattagat atcgatgtaa 120
 ttcatagagg cactagagtg agttcatttc ttgcatgaat gcatctggtg atgaacctgt 180
 gtagctcatt tcacataccc tctatcatta ctactgtcg gactatgcca ctgataaggg 240
 tatgaagtcc actaatggta ctcttcgcta aagtgacttt tactacatag tcttttcaag 300

aataacttca tagcgctctg acttttggtgta agacatttct gtaaccttag tactctctac 360
catttccacc gactccgata aggttatttc agtggtgaac cccttttt 408

<210> 4784
<211> 410
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F6

<400> 4784

ccgggtcgac ccaaacgtcc agacaaggac gaggatgtgg agtatcctag gaacaagtat 60
tcaactggga aaacaagtaa ctttcaagtt tgcgccatca agacattcat atttcacttt 120
atggcgctcgt ttcgcgcaaa ctgccaacaa caataacttg tccacagatc tacctccgca 180
cgtcctgatc aagatgcccg ctctttctcc tactatgaaa acaggaaata ttgtggagtg 240
gaaaaagaaa aattgagaat ctgttacaac cggttgacta atttcgaaa ttgaaacaga 300
caagggaact atggagtttg aatctcagga aaaaagttat ttagcaaaaa tattagtgcc 360
atcacgaaca cacgaacttc ctgttggaac gttagttggc attttagctg 410

<210> 4785
<211> 354
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-048-Q1-E1-F8

<400> 4785

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tggtccaaa aggtgcaaag agtggtcctg ttgcaggcaa gaaacccatc accaaaagtg 120
ataaaaagtc caaaaagaag aggtcagagt cctatgctat ctacatttac aaggtcttga 180
agcaagtgca tccggatact ggtatatact ccaaggcgat gagcatcaag aactcctttg 240
gtaaacaata tatttgaacg tattgccagt gaagctagta nacttgcagc ttaatccang 300
acgaagactt tgacttctcg tgaaatacag actgctgtac gtctgttgct ccct 354

<210> 4786

<211> 333
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-G11

<400> 4786
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 ttgacttgga gttgattgaa aggatagaga aaaacaacaa gacaaagaca gaaaagccac 120
 taggtaaacg ttacttgcca agtgggtgctg cgcgggagga tacaagtaga ctaacgacag 180
 cacaacgcac cggcttggag gaaccacacc agtgaagccc aggggacgag cttctgtaca 240
 gattcggttt tattttttca ttgtgaagta aaccttgaaa gaatggttgg tgcattgaaa 300
 agacataaag cgacgtttat gatananaan aan 333

<210> 4787
 <211> 300
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-G2

<400> 4787
 cgctccgcca cgagtccgaa gggctctgtt ggtatttcgc aacattatat gagtgtcatt 60
 gactattatt tggaaatcgt tttttctatt ttgattccat tggcacttat tcgtaccaat 120
 gcatattttg atctattact aatgggtgaa gatgctattc tgggctcgta tgatgacagc 180
 ggatacgact ttttcttagg aaatcttaag agatattcac ctgtaagtag tacagaagat 240
 attcaatttg cagctattta tcttattttc tactataggc ttaccattcg atgcatcatc 300

<210> 4788
 <211> 381
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-G3

<400> 4788
 ggtcgacgac gcgtccgaaa gttaatggag aaggaactca ccttcgaata ccattcttcg 60
 acgttcccat catttatgat gttagagcaa agccaagaag cgtgcagtct cttacgggaa 120

gtcgagattt acaaattggtg caaattacac ttcgagtact ttcaagaccg gacccagata 180
aaatacccggt tatttatcaa acgttgggaa tcgattatga cgagagagtt cttcctagta 240
tcgtcaacga agtttttaaag tctgtagttg cgcaattcaa cgctttctcag ttaattacac 300
aacgggaaca agtatcgcggt ctgatttcaa gaaacttgag agaaagagcg aaagactttt 360
aatatgtatt ggatgatgtg t 381

<210> 4789
<211> 408
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-G5
<400> 4789

cccggtcgac cccacacgtc cagtgcacaa agtggttcctg ttgcaggcaa gaaaccaatc 60
acaaaaagtg ataaaaagtc caaaaagaag aggtcagagt cctatgctat ctacatttac 120
aaggtcttga agcaagtgc tccggatact ggcatatcct ccaaggcgat gagcatcatg 180
aactcctttg tgaacgatat atttgaacgt attgccagtg aagctagtaa acttgcagct 240
tattccaaga cgaagacttt gacttctcgt gaaatacaga ctgctgtacg tctgttgctc 300
cctggagaac tcgccaagca tgcagtttcg gaaggtacga aagcagtaac aaagtacact 360
tcttcgtaat acgtactttg aacatatggt gtttgtcaac accttttt 408

<210> 4790
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-G8
<400> 4790

ccgggtcgac ccaagcggtc aggtgacggg tcaccgctct tttcgatcct aggaatacca 60
ctaagactca caagcagcac tttggtatta ctgttacttt actgaaacaa gtaccagtga 120
tatcagatgg agtagttcct ttggatatct tcctaactgc tccacatgaa gttttacgtg 180
tggttcattc ccatggttca agcttcctca tggttagagaa ctatagtgtt ggaatcatcg 240
tgactgtgta gcgtggctct caatctgttc tagctagcat gttcccggtc cgtgtcctac 300

ttgaaaattc gctagatggg ttggctactg tcgcactgtt atggttg

347

<210> 4791

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H1

<400> 4791

attcacgggt cgaccgacgc gtccgaccac gagtccggcg tccagtatga aaggagaaac 60
gagtgtagca ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt 120
aaactagcag taggacggaa agaccccata attcttgact agatagggtt agggaggaga 180
gagaatcatg aagtagagga ggtggggtaa gagatgaaag accactgcat gaggataagg 240
aatctaactg agtaaggaaa ataagcttaa gctagtttgg ctggggaagt aaagcctaag 300
aaagagtaaa ttaggcaagc aaaggcatga gagaagtata atagcagaag catgcttgaa 360
gaaaaagaaa gag 373

<210> 4792

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H11

<400> 4792

ggtctagaat tcacgggtcg acgcacgcgt ccggctttaa gtttgcaaag taaaaataat 60
agaacaagtt taaaaaggcc aatttcgtct tctagtcaac ttttgcgat gactggagct 120
acttcctctg cttccgatga cagtgttcca gatatgggaa agagaatggt cttaaactat 180
gtcttgcttg gtggtgcttc cattccaatc ttatctatgt tgggtggtta tgcatacttt 240
ttctatccac cctctcgtgg tgggtcgggt acaggctactg ttgcgagaga cgtgttcgga 300
cgagaaataa agaaaaagga atttttggaa acgaggaaac caggcacgca tgagttggta 360
caaggaccta aaggagatcc ctactatctt attgtgagtg aagatggaca gttggactct 420
tatggactca atg 433

<210> 4793
 <211> 332
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-H3

 <400> 4793

 attcacgggt cgaccgacgc gtccaagcaa aaaaaaggat cccgtcccaa agcacttggt 60
 ttgttcatac acatgttgaa aagggttttaa accatcacag cctaatacca ataaaggcgg 120
 tgggtggaac aaccaagac tttgttcatt gtgccaaaac acagggttga tctctgtggg 180
 aagtggacag aggtgtcctt gatccaacat ggtttcaacc aacattactt ccagtctgtt 240
 agggctctga gatagatgaa aaacactgtg tgaaacaagt ttcttctgaa tgttgctctt 300
 atacaacaaa atagtgttac cctgacaaac ca 332

<210> 4794
 <211> 280
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-H6

<400> 4794

 cccaagcgtc cacggacgcg tgggctattg aagggtctatc ttggatcaac tttgccttta 60
 gcctattcct ttgtggaagt gcaatagcag atgggtttgtt gggttggttca agaagtgcag 120
 gctcggggaa acaaagtagt ggatatagta gtaatgcgtg agctgttggg tacttgtgac 180
 tagattattg tttcatgttg tgcagaaaat aattcgttgt ctgtaaaaca gattgtaatg 240
 gtgcagtgtg ttaaaacata gcttcatagc agtttttaat 280

<210> 4795
 <211> 345
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-A2

 <400> 4795

gcgtccgacc acgagtccgg ggaaggataa cgacacgaac atcggaagta ttatggctgt 60
 tgattcacat gtatgttcaa cgacttcatt ttcgacaagg gaatctggca gcaaatccct 120

gttgaaggca aagcacgcta agatgtcatc gctgtcatca acatcaagaa aatcgagtt 180
 gttcgctctt gatgagacgt ttgcgaagaa ttttcagtct ggagattcct cgaactcaaa 240
 tagtttgatt gagattctcg catttgcagc ttctcaagct ctataaacgg cagactgact 300
 tagtttctac ttgttgtcat tgaaatttta ttactcgtaa ttttc 345

<210> 4796
 <211> 363
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-A4
 <400> 4796

aatttacggg tcgacgcacg cgtccagtct tgggccttgt gagccctgga tatttgaaca 60
 agtagaagtt tatatatggg aatccatgaa gtggcgatat cgcttattag tgtatttggg 120
 attttgctta gaacaagcac gtcggttttg gttacctttc atgcgagcgt tgccattgat 180
 atatcatcga gacgtgattt gtcgtcagtt tgatttggag tttttattcg gtccttgcac 240
 attggtatcg cctgtaacca atcccgaaga tgaagtaact ttttatattc ctgatgatc 300
 tgtcttttgg tatgattggg ggacggggaga aagatggaga ggaggacaag ttgtcactag 360
 aaa 363

<210> 4797
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-A6
 <400> 4797

ggtctagaat tcccggggccg acccacacgt ccaccacgc gtccggcttt ggcatttctg 60
 ctgcttggtt gtggttcacc gtacttgga aatcttcggg ttgttggttg gtcaaagcac 120
 atcctgttat gacatctctt cctattccta ttcacagcaa caacagaaag gactcatcac 180
 cttccagttc acctggcaag agttgttccc cgcgatggga agttcgggca ataagaacac 240
 ccacaggtcg aaggaaacac ttttatgtgg accatgaaag aaaagcaact tattggaata 300
 tgccaaagga gcaaacagac tcggatggca cttgtacaga agaaggtggt gcaacaaact 360

tgacctttc

369

<210> 4798
<211> 346
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A7

<400> 4798

gacccacgcg tccaatttga ctgggggttta tagaatatga cctttcgata ttttctccat 60
gcatgtacaa catgtgtaca taaatatacc aactttgttt gaaaacatct ttatggacca 120
gtaactgttg gaatgcctct cccatcaaaa gactacgact tggccaagc aatgattgtg 180
ggagaaatat tgtttccatt agttgcttgg gcttcagtat agttggtgga ggtatcatgt 240
ctttttgtgt acaagtgcaa actttccacc taccttacct tgaaagggaa caacaatagg 300
gtttcttttt gtacaagact cgaacaagtt ggaaatgtac gagcat 346

<210> 4799
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B10

<400> 4799

ggtctagaat tcccgggccg acccagcgt ccagtggatt catctttag caccaagtgg 60
ctgtttattg caacccact gttggaagtt gcttgactg atgggcagcg aattgaaatg 120
attcctttga agaaagatat aaaggaattg tttttctoga ctttaaagaa gaactttgag 180
tcgaacgaag cgtcatggga gtgcagtgt gttgaaaccg cagttgctgt ttttatccag 240
tattatgaac agtgcggtga acagtactat ctagcaggca aagattatga gctacctggt 300
tattccaaag taaaatagat tcggagtatg attgaagatg ttctacaaat agagaaggaa 360
cttggaata tgcgtcagac ccttggtggc gttcggagtc gtctttgtac ctttgaagct 420
gcatcacgca gcgaa 435

<210> 4800
<211> 425

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-B11
 <400> 4800
 aattcccgagg ccgacccacg cgtccagaaa ctttgaaaga ttccgtagct cgtcttggtt 60
 gttatttggt cacttcagag cttgacagag tttcttggtt gtactccttg agagactggt 120
 ttgtgatagt aaagcatggt gggagcactt cagggttgctc tggactttat tggacaactc 180
 cctgttggtt aaaattttat catcagagaa atctaagcaa gatgctggag cagtagcaca 240
 aggaaaaagc aaaaagatga aggcagtttc ttcttcagtt ggctcagtac gacaaggcga 300
 gtttaattgg atggaatttt tgaagacata ttgtaatctg acagagtctg aagcaaata 360
 atgtttgtat gctatgaaga gattctcgga gagtgagatg gaagtaatca gtactagtat 420
 gctga 425

<210> 4801
 <211> 116
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B2
 <400> 4801
 acgcgtccaa aggaaatatg acccagtaat gaggagtgga gtaaacagaa aaggaaagtaa 60
 aaggagggaa tgaagggaag ttatggcaaa aacacgtgcc agcagcagcg gtaaaa 116

<210> 4802
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B3
 <400> 4802
 ggtctagaat tcacgggtcg acgcacgcgt ccaaccttat gccaaagatc gttgggggtgc 60
 aactcctatt gatgatgcgt gggaaaatgg gcatataaaa gtagttgaaa ttcttgaatc 120
 ctttctagag cgtgaggggag actccgaatc tggaatgact gaggaatggg gacaaagaag 180
 aaatcagtat cggtcggata aaggatatga cattccgttg aatactggac atcgtccttt 240

aggcgccctt ccaagtttct ctttgacaaa tgatgttgct tgtaacgctc ttcgtcgtgt 300
 agtgtcgagt ccagtgaag aagaaaccga tgctggatta cagcaaatac acagaagtgc 360
 atcatg 366

<210> 4803
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-B4
 <400> 4803

ggtcgacgca cgcgccaga aagtggcaca acggtaatgg gaaaggaaac agtagtaaag 60
 aaaagcaagc gtgtattggt caaactgttg agtcgggctg gtacacgata tttttataacc 120
 aaaagtaaga ataccagaaa tactagtggc aagttggagc tcataaaata cgatcccatt 180
 gtcggaaagc acgtattggt caccgaaacc aagttgaagt aacttggaca gctgtcgata 240
 gaacgcctat aagattgacg ttggcaactt acataaacag cgctttactg aaaa 294

<210> 4804
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-B5
 <400> 4804

gggccgaccc aagcgccac ggacgcgtgg ggtttcgatg aactacagtc cctattcgat 60
 aactaccgac aaatcagaag gacatattgt tcccggtact ttttcaagat ttgagtttct 120
 tgaaggtcga gtcaccggtc caacgtgagt atttcttttt actgctcgat acagtctttc 180
 acgtctttgt agcgtcttga accctagcat acttgacttt acagtgtcta atgtttcaga 240
 tgctgccttt ggagaatgga gagcattatc ggcttcaagt agagcaaaaag aactggaaca 300
 cagaagaaac gtcaccaaag cgacaataga aagtctcaag aagactccta ccgaaaa 357

<210> 4805
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B6

<400> 4805

gggtcgaccc acacgtccga ccacgcgtcc ggcagaatgg acgacaggct tccacgtttc 60
aaaagaaacc tccaaaagat ggcttaataa aaggcaaatt ttccttaacc cttttggcaa 120
atttcctttt ggtgaaacca tggccatcat gaaagcggcg gtcttgcat ccttggccta 180
aacacaatgc gccgttgcaa tacaagcttc tcctctagag gacactttgg gtgcctttat 240
gcgggggtggt tatcactcgc aaagccaagc accaaaccct atctgttgca agttgagctg 300
tcattatacc caattttgtg aacaatttat cgtccaaact caagaggtc 349

<210> 4806

<211> 355

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B7

<400> 4806

ccgggtcgac ccaaactgcc aacatcatat cgagccacga tgaaaactgg atgcttactg 60
gaaatcacac aggcattgtg aagtactggc agtccaagat caacaacctg aacgcatttg 120
tatcccacga cgaatccatt cgagacatta cttttgcagt ttctgacgta aactttgcca 180
catgttcgga tgatgtgacg ataaacatat gggacgtatt gagaactgcg gatgctttcg 240
attttaccgc atgcgatgaa taatagcaac ttacaggaca tggctgggat gtacgttgca 300
ttgaatagga tccgcagttt ccgaatattg cttcgggctc caaagattct ctact 355

<210> 4807

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B8

<400> 4807

gtaacggtct agaagttccc gggccgaccc acgcgtccaa agacatttca tggcacccaa 60
ggaacgtagt aaaccaaaga gtcgctcttc taaagccggc cttcagtttc cagttggacg 120
tgtaagtaga ttcttaaaga atggaaacta tgcagaaaga gttggagctg gagcaccctg 180

gtatttagct gcagttttgg aatatttgac tgcggaagtg ttggaactgg caggcaatgc 240
agctcgtgat aacaagaaaa cccgtatagt tccacgtcat attcagttgg cagttcgtaa 300
cgacgaagaa cttaagaagc tgttgggcgg tgtgactatt gcttcaggtg gcgttcttcc 360
caacgtccat cccaat 376

<210> 4808
<211> 303
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-C1
<400> 4808

gacgcacgcy tccaacttgc aacagatcca gtgtcgatgt tgggtggttt acagtccagt 60
ccttacttgt tattaacgca tttctttgcc gttgctctct acggatgcgg aaggcagttg 120
aaatattttc ctagttggga acgagtgaga acgagttggt ctctgttttag acatgcattc 180
aatatcgtga agcctcttat tgatgacgaa aacgtcacct ttctcagcaa gattcctata 240
tcacacatat gattttgttg tgatgtggag aacacttatt taaacgtttg tatttttcgc 300
ttc 303

<210> 4809
<211> 364
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-C2
<400> 4809

cacgggtcga cgcacgcgtc caatttcatt tcacattctc cttgtagaaa actatgaagt 60
ctttcggaat tgctattggt ttctaagct ttgttattgc atcttatgca gcagttgtat 120
ccgaaatggc atccaatgag tttcaaagag gaggatacgc tccttctcct tccaaggaat 180
gctgcatgac cacttggtcaa tatgcagaac ttgcccatt ttctcaacca acttatagcc 240
aagctccatc ttacattcca tctcctacct atggccaagc cccttcctac aatcaatatt 300
cttcttcgta cggttcctct agctatcgtc tcttaactgc agacgaaaac caacttgtga 360
gcag 364

<210> 4810
 <211> 363
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C3

<400> 4810

aattcacggg togacgcacg cgtccaaata ctatgaaatt gagtaatccc tcttatagcg 60
 acctcaatca gttggttaact gcagtaatgt cgggaatcac ttgttctctt cggtttccag 120
 gacaactcaa tgcagatttg cgtaaattag ctaccaatct gattccattc cctcgtctac 180
 actttttcat gattggattc gtccttttag ctgctcccg aacgcagcag tacaagtcaa 240
 gtagtattgc tgacttggtg caacaaatct ttgattctcg taacatgatg gcagcatgtg 300
 atcctcgtca tgggcgttac cttactgcag cagcttattt ccgaggaaag gtgccaacca 360
 acg 363

<210> 4811
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-C8

<400> 4811

ccgggccgac ccacgcgtcc acccacgcgt ccgcccacgc gtccgccatg acttggcagg 60
 gttgattact tctcggaat tggctcaata ttttcattct ttggaaacta atgtcgtgga 120
 agaatttgag aatatactag taaaagatat gttggatcac aacaaggaca aagtgcgtga 180
 aaggttgcat gatcaatcca tctagcgtt gcaagtatcc tctagagtga aagatgctgt 240
 ggagttgatg gcacagtatg gagttggttg tatttttgta actagtgacc atagcaaagg 300
 tgctttgcat ccttatcctg atgttggttg aatgtttacg gaaagagaat tcattc 356

<210> 4812
 <211> 372
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D1

<400> 4812

gtcaagaatt cacgggtcga cgcacgcgtc caagacattc tcatcgagag gaagagagtg 60
gcagacaagc tttttttatt gttttcaagt ctctccaagg gccttttaaa ggaaaaaagt 120
ttgaaatccc agagtggaag cctgtcattt ttaaaagaag tgaaacgagt ttgaccccaa 180
gttttcataa aaggctaggt gaagtttgct taccagaccc cgacgtttca cgacttcacg 240
ccaaagtttc atttaaaggt ggtagatttg ggatagttga cttgggaagc ttgaacggaa 300
cgtttttgaa cgataaacga ctttctgcgg aacgtgtacc tttggacgaa ccggttggtt 360
tgagcaacgg ag 372

<210> 4813

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-049-Q1-E1-D10

<400> 4813

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aaggcgtggg aagttttccc gtccttttcg tctccttctg ttagagtatc tcgtcaactg 120
ttttcagggtt ttggtcttgc aacaatggct gctgcaaaca caaaggaact agaaaccaag 180
gtgaggggaca ggctggtgca actttacaag cagactcctt gtatgccaat aatggtaaga 240
atagcttggc acgacggggg aacatatgat gtgaatacca aactggggg agtaaacgga 300
tcagttcggt ttgacgttga acagaagcat aaagccaacg ctggtctcaa agttgctttg 360
gatttattgg ctcccatcaa aaaggacttt cctgagatca gttatgctga cct 413

<210> 4814

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D12

<400> 4814

ggtctagaat tcccgggccc acccagcgt ccaccacgc gtccgaagaa gagaaaagcc 60

gtactgaaga ccgacacagg tactcgagga gaaaggagac ccaaattaag gtgagagaat 120
ggacgataag gaactaggca aaaggatatg gtatctgcgg tagaacatat gaaagaagca 180
gcaccgactg tttagcaaaa acacagcact ctgcagaaaa gagaaaatgt aaagtataga 240
gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg 300
aggtatagag aatggcggtc ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt 360
ttgaaaggcg tccagtatga aaggagaaac gagtgtagca ctgtctagtc gtccaactca 420
gcgaaacagc aat 433

<210> 4815
<211> 363
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D2
<400> 4815

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tttgatatg gcagaccccc aaactgaaag agcgtttcaa aaacatgacg ctatatcttt 120
aaagcagatc gctggagtat ccaaaaagaa tgcaagatgg tacaagaata ttggggttagg 180

aatcaaaaca cccaatgaag ccatagaggg agaatatata gacaaaaagt gcccttttac 240
gggaaacgtg agtattcggg gaagaatttt gagaggaaca gtgggtttcaa cgaaaatgaa 300
gaggactgtt atcgttcgaa gagactatct tctactgggtt cgcaagtaca gacgatttga 360
aaa 363

<210> 4816
<211> 357
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D4
<400> 4816

cgcacgcgtc cgaccacgag tccggaagaa aagagagaga agaaagaaaa gaagagaaaa 60
gccgtactga agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag 120
aatggacgat aaggaactag gcaaaaggat atggatatctg cggtagaaca tatgaaagaa 180

gcagcaccga ctgttttagca .aaaacacagc actctgcaga aaagagaaaa tgtaaagtat 240
agagtgtgcg gcctgccaaa tagtagagaa gaaatcgatg aaagtgaaag cgagtaaaag 300
atgagggtata gagaatggcg gtcctaactg taaggatcca aaggtagcga agtaaat 357

<210> 4817
<211> 260
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D5
<400> 4817

gacccaaacg tccagttcca cttcccggtg acatacacga gaggactcct tgtgccgccg 60
ttggacataa tgctacaagg ttccgaatca cagtcgtgtc ggtcaccttg ggggtgtaatc 120
tcacagttgt attaatcacc taagtgtaac tatgggatgt ttaccccatc actgttcaga 180
tagtatactt aatctgcctg tgaaattgta gctctaactc ccacagtcag tgctggataa 240
acagatattc aaattgaggg 260

<210> 4818
<211> 371
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D8
<400> 4818

ggtctagagt tcccgggccg acccaagcgt ccaggagaat tttgtctgca atagtatgaa 60
gcaagtcgtg actgacacaa tagacttgct agaaagagta gagcagagat gcatagaatg 120
ggacaaaaag acagaaaagc tttcaggaga agtgaaacaa gaatatttgt cgtttttggc 180
gccttttgtg tatcagcgct ttctcgtgtg tttgtttact tggaacgctc tgttgattga 240
atgttttcat tctaatttct ttgtagtcga aaccattcga gggtttgta cactgactgt 300
tggtgccct gttttagctc ttgccgctag tctttcgttt gcgcattatt atcgacgcaa 360
aagtatgccg a 371

<210> 4819
<211> 426
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D9

<400> 4819

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atgcttatcg tgaccctatc acggaatttg tcgaatgttt gtatgtgaat tacgactttg 120
aaggagcaca agattttgtta cagaaatgtg agacaacttt gaagcacgac tttttcttga 180
ttggaacgtt ggaggagttt ttagaaaatg ccagactatt tgtttttgag atatattgca 240
gaattcatca agtgattgat ttgaatatgt tggctgcca gttaaacaatg gaccgagagt 300
ctgcggaacg ttggatagtg aaccttatta ggaatgcacg tctagacgcc aatgtggata 360
gccaaagcaag tcacgttatc atgggagtga aaactccaag tgtctacgag caaattgtgg 420
attcta 426

<210> 4820

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E12

<400> 4820

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ccaccgtaac tggtccttca gggttcaaag ctgttatgag tggcatactt gtcaatcaga 120
aggaatcttt tgagacagca aaaggaaata tacagaatat ctattgtttt gaacaatcca 180
ttccagttcc ttctatctt atctcattag ccgtcgggtc ctttgagtcg caggaattat 240
cagaaagggtg tcgtgttttg tcagagccgg aaatcattga aagtgcttgt tttgaatttg 300
ggttaacgga gcagtttctt aaaacagcag agtctgttgc aggcttctat ttgtggtcga 360
gatatgactt gctatgtctt cctccttttt ttccatatgg gggatatggaa aatccatggt 420
tggcttttgt tacg 434

<210> 4821

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E2

<400> 4821

ggtcgacgca cgcgtccagg ttgtagttgg gtcgtcgcgt tttggtgaca aggaaagata 60
aatggtcgtc aaaacagaaa cctgtagttt ttcaggtttc cgcactctacc ccggaaaagg 120
cactcgattt gtgcgcgggg atggcaaact cctcatcttt agtaaccgca agtgcaaata 180
ctactttcat atgcgtagga gaccggcaga gttgaattgg actcagttgt atcgaagaat 240
gcacaaaaaa ggacagcaag aggagacaca gaagcgacgt cgtacgcgca aagttgctgc 300
tgtaccgaaa ccggtggaag gcgcgtcggt ggaagtgatc aaagcaaaga gaacgcaacg 360
cc 362

<210> 4822

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E3

<400> 4822

aatteaeggg tgcagcacgc gtccgggtac aattacgttg tggatgcgca atgattgttt 60
ccgtggcaac tctgaagtgc acaactactc cttctactct agagaaaaga cgaaatagtg 120
actcgttatt accttcacaa gctgaaagtt taaaagatgg tttcaaaca gtggaagaac 180
aacacagacg agatttataa aagctcgaaa ggcggtataa aagcgctgtg aaacagctgc 240
aactgaagca caggggtatgc aaagtgttga aagcaaagaa tacaggtggt gtaagtaagg 300
aagaggagaa gtgaccata aagtcattgag ggagattgtg ggagtgggaa tgttgccctc 360
tcattcctt 368

<210> 4823

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E4

<400> 4823

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ttctagtgtt gttaaggatg cgcttcacat aacgaaagat atcaattcaa tcgaaggcct 120
 ttcatggatt aacttttgctt ttacgctatt cctttgtgga gtagcagcag ttgacggatt 180
 gttggtggga gataagacca gcagctccgg caaacagaat acaggagcga acaatgcttg 240
 agtttcttga gaagttacaa atagtcgtgt ctatgaagtt gtctgagttg cgtgagaaaa 300
 gacaagtagt tgtgtctatg aagttgtcgt aaatagttga tgtgtgttgt gttgttttgc 360
 cacagaaagg atgttt 376

<210> 4824
 <211> 55
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E6

<400> 4824

tatatctttg ttcttatatg tatgttggtg aagctttata tcttgccact ctgga 55

<210> 4825
 <211> 310
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E7

<400> 4825

ggtctggaat tcccggttcg acccacacgt ccaggaaatc gtaggtaaga aagatgtcac 60
 actatctttt ctacatctcc tatcacatat gatggctgtt agcagaacta tattttgcca 120
 cttatgaatt aatttttaggc tcaacataac gaagacatca ttgcatactg aactggaaat 180
 gagtagagac ttactaggac atatgagcct gcatccaccg atatttctct ttatgggaca 240
 tgaaatcggt gaacttctgt tagtattggt aattacacag cataatatgg ctatggatac 300
 gtctgaggat 310

<210> 4826
 <211> 373
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E8

<400> 4826

ggctctagaat tcccgggtcg acccaagcgt ccaggaaaag ttgtccaacg agaattcttc 60
aaatgttccc ggagaatata ttctagtaca cctgattgtt gcaagtgaag gaaaactttc 120
ccagttaccc tctcagttga actcggaatc cgatgtccga gaagcattga agattctttc 180
tagtacttgg agtgataagc ttcaaggact tgaaataatc tgggttcctc aggctataga 240
cgatgtgtta actgagaagg aaatgctcct acagcatccc gagttgcaac gcatttcgta 300
attgagacgt attgtttggt gatgagttta ttgagtaatg ttttaagggt tagtagggat 360
atagatagga ttg 373

<210> 4827

<211> 359

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F1

<400> 4827

ggtcgacgca cgcgtccgac cacgagtcgg cgaggatttg cgtgcgatgt gggtttgctt 60
ctccttgtgg ttcctttttt gaaactagag cgtttcacaa gagtgccttg cataattcat 120
ccttttacgg aaacagaact ttctgaaagc aaccccagag aaatgtgttg tattttgtag 180
cgggtttcgg taacctgcgt tgtaccattg aaagcctaaa taccaagcaa gctcccgtgc 240
aatatgtttc tttagcgaag gagttacaga cagctctaata caaacttttc aaagagaaga 300
gttcagactc acttgaacaa cttcttgctg gagattgcgt ttggaagaat tgcataaag 359

<210> 4828

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F10

<400> 4828

ggctctagaat tcccgggccc acccacgcgt ccaaatttaa aaaacaaaaa tctgcaagg 60
gaagcattgc cttcgcaaat aaacacatca gaagatacat aaaatatggc tctcttcggt 120
tggctcttgc ttgcgacggt tccgcagagt tgttgtttgt gtgtttgtct ttggcgagag 180

ccattcctcg ttgctttgtt ttttgtgtcc tcttttacct ggctgttgat gcgcagctta 240
gtacggcttt cttggatagc tacctctcgt tacgtaacaa tgtattcttt ttgggttctt 300
ctatcttcgt gtttggagga actcgcacga tgtttcggtt ataagatata taggcaccta 360
aaatctgctt tatgggaatc aaatgatgct tcaaggtctg aagactatcc aca 413

<210> 4829
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-049-Q1-E1-F11

<400> 4829

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taaagtaggc gagaaagcat aggaagtga acggattagg aaccctgtga gtctatgcag 120
taaaagaaag aatgagtaag aaaaaaggga gtcattccac caggggagta aaggcgcaag 180
aaagaaaccc aaagcaattg acgggaatcg gaaaaagggg tggatcacgt aaattaatcc 240
gataaaccca gaaccttacc tctccaagaa ggtgttgac ggctgtcgaa agaactgtgt 300
gtgaagtga agaacgtacg agaaagccaa gtgaggaaaa gaaggcaagt agagggcggc 360
ccgagaaagg agaaggcgta agacgtgata cagagtagga aganaagaga agagagctag 420
aaaggaggta aaagaag 437

<210> 4830
<211> 417
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F12

<400> 4830

ggctctagaat tcccgggccg acccagcgt ccaggttgct caaggtgtga aatggcagta 60
gttgaagata acagagtctt tgttggtggt cttccttggt cagttagtga agaagacctt 120
cgtgaaactt tttccaaata tggagaagtt gttgatgcaa gggttgttgt tgaactgtga 180
actggtcggt cccgtgggtt tggtttcgta tcttatgcag aatgttcctc cgtagacgaa 240
tgcattgccg cactggatgg caaggatatg caaggacgca ctattcgtgt gaacaaggca 300

atgtctcgtg aacaacgga gagtggagga gactttcgtc gcggtgggtcg tggacgatac 360
 ggagggttttc gttccgggtcc ttatgagaga cgtgaacgtg actctgatcg tagaaga 417

<210> 4831
 <211> 350
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F2
 <400> 4831

cgcggtccacg ggatagttgt atgatttctt cctggaaagt gctcgaaaca ttctctcttt 60
 gaatacacac aaaatacgtc ctgttggtgaa agcacctgga atggaactag aatatgaggg 120
 tcacgtttct tgtaaaagcg aaaacgatga agacgcgctg tatgaaagtt ctttaacggt 180
 ggggtgataac gaacctacag taagtattcc cataacatca tacaggagac aaacggtgaa 240
 ctgtgagcac ggaagaccag cgggtgggatc acctgaagaa ctgggtggaag cagaaagtta 300
 tacggaacct gacaagtggg aagagtcttt tcacgaagac actgtagttg 350

<210> 4832
 <211> 367
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F3
 <400> 4832

attcacgggt cgacgcacgc gtccgaccac gcgtccgccc acgcgtccgc acagtttgac 60
 atgagagaag ttgtcctgca taccattttg gttttcctcg atgtctattg gggcctcata 120
 aaagaagtga cacctatggt tgcagaatat cgatatcaag tccttgtaga agaagacaca 180
 ttggaaggcc atctgagtga caagcagtag attttgtgga aaaatgtcag tgctcaagca 240
 aagaagaagt tgaagtggag ctatcttgat ttgagcaact tgcctctgga catcgacatg 300
 gaacaagtgc agcgactatt tgatgaagtg catacaaag gtttgataag attacaagca 360
 ggtaaac 367

<210> 4833
 <211> 368

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F4
 <400> 4833
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 gaaagacttt tcttgctgga gtcctgcaat actcgttttt cgaaatactc aatattcaaa 120
 gttttatttc atagttacct agcactgctg gctatccact attttcagat gataggccaa 180
 gtgacagaag gtcgtcaaga ttggtaggca tttcagaggt ttgtggagaa atctcttccc 240
 tgggtccaaact gtttggtctgt gtgtttttac cctggaagct tggtgaggac ttgggagttt 300
 cggccgcctg tatctcttct ttcacaggct tcttttggcc ctttcttttg ttgtcaaata 360
 tttccaga 368

<210> 4834
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F6

<400> 4834
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 agttgcttgg gtgtgtcttt tcacgtaaca tatgcttttc aaagcacctg ttgttggaac 120
 tttgaagcga aattgagttg ccaaacacga aatactttta gaggtgaagg acttttgtat 180
 gttcgcccta ttttcaacct aaggagcttt cttaccagt gctagcatat tcaacgttgt 240
 ggacttggtg catcagtaca actcgacgag agtacaaaga acgacggctt ggcaagtttt 300
 cactggacaa agatttttgt tcccgcgggt atgagaattg acagacagta cgccaacgtc 360
 cggttggaag 370

<210> 4835
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F8
 <400> 4835

ggtctagaga tccccgggtc gacccaagcg tccaggctag gtttcccact gagctacctg 60
 gacacctctg gtgatttgac tcctgctggt gctttgaata atactataat gaatggtgcc 120
 ttaatgaaac ctttcggcag cagacaccct gacgaaagt atgctgtttc tagtgcagct 180
 gctgctcaag gagacggagt tcgaaacgta ttgtcaaag acatgtcgca tctgccgcaa 240
 gacgagtcga tagaacatcc catctcacgt gacattgaag attatcataa agtgccatgt 300
 taattgattt ggatcttggt caagttaatg ttcaagtc 338

<210> 4836
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-G12
 <400> 4836

cggctctagaa ttccccggcc gacccacgcg tccaatgaaa tttccaaaga aatggacctt 60
 tacttgaaga aagtcggata taatccagca aaggttccaa agatccctgt atctggatgg 120
 actggagata atctttttga gaaagttcct gccgatcatc ctcttggaag gtggtacaaa 180
 ggaccttggt tgttgaggc tttggatatg attgaccgc ccactcgtcc agtagacaag 240
 cctctacgtc ttctctaca ggatgtctac aagattggag gtattggaac tgttccagtt 300
 ggacgcgtag aaactggtgt cttgaagcct ggtatggtgg taacctttgc accagttggt 360
 ttgactactg aagtcaaac tgttgaaatg catcacgagt ctattccgga agctcaacct 420
 ggtgacaatg ttggcttcaa cgt 443

<210> 4837
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-G2
 <400> 4837

gcgtccatct catagttggt gttattgagg aacacggagg acgacagtag cgatgggatt 60
 gtttagtaga ctgtttgtga aaccgagtcg tgtaccgcaa agagtcgtag agtttcaaaa 120
 gcgcaaggcg gaaggttact ttacatacaa cgccgggaag tacgaccgat acatcaacac 180

acctattttac ctgtttgtgt ccttcaccgg tctttatgcc tttattgacg gttgtctttg 240
 ggcggcagga aagaaggaaa gtcaatcgtg aatagcgttt tttgtccttg tggacagtct 300
 tatgaactag tgattcgttt gttctgccag ttttagtttc ctgtaatga 349

<210> 4838
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-049-Q1-E1-G3

<400> 4838

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 aaggacaagt agcagaggct atgaatatgg cagcgttatg gaagttgcct tgtgtttatg 120
 tatgtgaaaa taacaagtat ggaatgggaa cgagcaccga tagagcttca gcaaatacca 180
 acttttatac tcgtggagat gtcattcctg ggattcgagt agatggaatg gatgtattgt 240
 ctgttcgaga aggaatgaag ctcgcagtta attatgctcg ttctggaaag ggaccttttg 300
 tagtagaaaag tgttacttat cgctatcatg gccattctat gtcggatcct gngttgtc 358

<210> 4839
 <211> 360
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G6

<400> 4839

ccgggtcgac ccaagcgtcc acggacgcgt gggtagagatt gaccatgcac gtgttctaata 60
 taccagtccc gctgcacgtt ggtgacacct aaataaaaag cagacgtaga acaagaattt 120
 tagctgttcc agaaacaaga acagcaaatg cgcaattggg ttgtagcagc aagcagttag 180
 cttgaacagt tgatcttttg ttcaagtgtt tgtacaaaga gtcgatttct tcgtagttca 240
 aagtcgagtt ctctgtcgc tcagaataag acaatctcag ctgtgtttac ggcttatctc 300
 aacgtgaaga tgtcgatgca acgtgaagct ttttcgtgca acaagcccga caagctagtc 360

<210> 4840

<211> 373
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-G7

 <400> 4840

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 atgagtaaga aaaaagggag tcattccacc aggggagtaa aggcgcaaga aagaaaccca 120
 aagcaattga cgggaatcgg aaaaaggggt ggatcacgta aattaatccg ataaaccgag 180
 aaccttacct ctccaagaag gtgttgcacg gctgtcgaaa gaacgtgctg tgaagtgaga 240
 gaacgtacga gaaagccaag tgaggaaaag aaggcaagta gaggcgccg ccgagaaagga 300
 gagggcgtaa gacgtgatac agagtacgaa gaaaagagaa gagagctaga aaggaggtaa 360
 aagaagagta aaa 373

<210> 4841
 <211> 296
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-G9

<400> 4841

 ggtctagaat tccccgggccg acccacgcgt ccaggcaaat ccctgaaatc agtatcaaaa 60
 tatggatagt cgcataaact gactaccaag cttcacagag ggagtacatg aggaccgact 120
 tatcaacgaa gtagtagtaa gagaagggtg aatgtgtatg acagcatgtc agtagctgca 180
 tcatacagtg taattcgcgt accttttgca tactgtcgca gcgagtgaaa tacgacctct 240
 taagatttca taccaattaa cgagctatca tccgcagcga gttgatcata ggcggt 296

<210> 4842
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-H12

<400> 4842

 acccacgcgt ccgcccacgc gtccggggac tcgacgattc aggatgtgcc tgttctaaag 60

gctttgatgg atacgaaaca taactgaatc atgtaacact atgaaaatgc taacttggac 120
 ttgatggaac gtatctatcg aatgaaaatg ccagagtcga agaactttgg atgtttggta 180
 tttactagag ccgtgctcta gtgtagaca aggcaaatg ggaaagctaa aatgattcg 240
 gtccagcaa ataactgtac acattggatt atcttgtgac aataaaccaa tcttccaacc 300
 atatcaaaga cagaact 317

<210> 4843
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-H5
 <400> 4843

ccgggtcgac ccacacgtcc gaccacgcgt ccgcccacgc gtccggagag aatcgatcgc 60
 gcacttgatg gctttcgtag gattctccaa cgtcaagtac aacacgaaaa gtccgcatgt 120
 cgtctgttta caaaccagca aaagagaaag gagatggaca acttgttttc atggagaccg 180
 ttcttgcttt ctaggtcaac gacagtcttt tatcccaaca ccgttacgac gacgttccga 240
 cctgaaaatg accgcacaaa ccaaagaagc cggttcggaa gccaaagaaa agacttttga 300
 atttcaagca gaagtttcca gagttatgga tattatcata cactctttat actcccacaa 360
 gg 362

<210> 4844
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-H6
 <400> 4844

ttcccggggc gacccaagcg tccaccacg cgtccgaagt ttggttgttt tcttggtagc 60
 agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag 120
 aagccacaag taaacctgca gcagcagatg ctacaaagac gacagaaaag tctggtccgg 180
 aagccaagtt gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgtgcag 240
 tcctgttatg ttttgtgagt tctgtttgat agtttccagc tattcttttg gtagtgaata 300

aagagaaaat tttttatatt tacac

325

<210> 4845
<211> 371
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H7

<400> 4845

ggtctagaat tcccgggccg acccacgcgt ccaagcttct ccaaagaaaa tcgcagagta 60
cacaattcgt acgttacagc gtactgtgcc agctgccgta cctggcattg tctttttatc 120
aggtggacag tcagaagaag aagcttccgt gaatctcaac gccatgaatc aagtggagat 180
gatcaagcct tggaaacttt ccttttctta cggacgtgct ttgcagtctt catgtctgaa 240
agcatggcaa ggaaaggcag agaatgtccg agcggcacaa gaagcctttt tagttcgtgc 300
aaaagcaaat agtgaggcta ctttgggtaa atatgccgga ggtactggga atagcgaatc 360
tttgtttgtc a 371

<210> 4846
<211> 303
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H8

<400> 4846

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taggcttaga agcagcaaac cagagaggaa agcgttaaag catgaaagaa aagaaatccg 120
aaaaagaaga gaaaaaggta agaaagagga ccgaatcagg gtaagaggta gaggagcaag 180
aagagaagag agaatgctgg gtggagtagc gaaacaagag aagggaagta aaaggtaaga 240
aagaggaaag gtttacgaga gaaggaagta gaaagaagag agtgtaaggc ggcgtcataa 300
tag 303

<210> 4847
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A1

<400> 4847

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aagagactgt gggttttcgct actagaagaa aagtaccttt tttagtattt gttgaagttg 120
tcgaaaccaa tatgttgtgt tgtagtcaat atgtgttttt tgaacatatg ctcatggatg 180
attatgaaga aacacatgac aatgacatcg tagcagtcac ggagagtcga cacttttccc 240
atcgttcaaa gaggactttt tcgaccgaag aaactcctcc ttcaaaggaa tcaagaagtg 300
gaagtgtaga ttcttcgacc acgccggagt agtaaacaca acgagcatgt acgaactgcg 360
gtctatggaa atgcggaatc cgctgtcgat atggatgcct 400

<210> 4848

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A10

<400> 4848

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tcggaattta acgaacttaa tgcgaaagtt ttcggtgtga gttcggacag tgtagagtct 120
cagaagtcgt ttgccgatga agaaaagttg acgtttccct tagtatctga tgaaggcggt 180
aaagtacgca agctatacgg tgtaccaaag agcatgttta ttatgcctgg tcgctgcact 240
tatgtcattg gtccggatgg tattgtacga cacatctaca acagtcaagt aagtttcgca 300
taccacgtgg aagatgcaaa gaaggcggtg gtaaagatac tagacgacac gcatacagga 360
gaagagtga cactatagac tgctttgcgg cttctttgat aagaataggg ttccagtcac 420
gtgcttcggc tgggtgtggca agttactttg taagtt 456

<210> 4849

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A12

<400> 4849

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 gcgttcgggtc atagtaatga aagacgatgt ggacaagata ttggagctgg atagtcataa 120
 gaccttagct atgggtgggg agccaggtga ctttgtgcag ttcacggagt atatacaaaa 180
 gaatcttcac ctttacgaat tccaaacggg attgcaacta agtactcacg cagttgctaa 240
 cttcatccgt ggggaattgg ctagattgat acgggaagcc cccgtattaa ccaacctact 300
 tttgggggggt tatgattctg tgtccgggcc ttcactggta tacatcgact atcttggtac 360
 tttgggaaaa ctagactata ctgctcaaag atatgcgctc tcctttatct tgggaactct 420
 cgatcgatat tatcaaaagg atattacact ggacg 455

<210> 4850
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-A5
 <400> 4850

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 gtaacgagaa gaaatgggtc aaatatttgc tgaccttga aagacagcca aaaagctttt 120
 ggaagatgat tactgtttcg ataataaagt gacgttgaaa tcagcgacga gtaatggcgt 180
 gatataact tcggaaggcg ttcaagattc ctttagtggt tcagtttctg gtgaattgca 240
 aggggaatac aaacagaaag gttataatgt aacaacaaaa ctgaatacct cgggcacctt 300
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 tacg 364

<210> 4851
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-B10
 <400> 4851

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 tgagaatcct gcaaaggcca actgaaagcg cccttatagt tgttattctc tactgttttg 120

tgtcccttgt ttttaagtga caacaggaaa ctccttcttt accttcctat acgttgacta 180
 ttgcggtga agtcttcaac gaagatgcac ctcacccgtt gagtagaaac cttccttctt 240
 ccaaagagat agaagtagca tattctttta gtgttgcaac ggatgaaaaa agtatacagc 300
 ctgagactct ggtagattgt ttagttggag tggcaaatgg aggacctttt ccatatcgaa 360
 tattagcagt tgggtggagct ttgcactccc ctttgcaatt taactattat gttcacaact 420
 ttactctcct ttatgtcaac tataact 446

<210> 4852
 <211> 461
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-B7
 <400> 4852

gaccacacg tccacagaga ggaaagcgtt aaagcatgaa agaaaagaaa tccgaaaaag 60
 aagagaaaaa ggtaagaaag aggaccgaat cagggtgaaga ggtagaggag caagaagaga 120
 agagagaatg ctgggtggag tagcgaaaca agagaaggga agtaaaaggt aagaaagagg 180
 aaaggtttac gagagaagga agtagaaaga agagagtgtg aggcggcgctc ataatagaaa 240
 tccgaaagga gtagaagaaa agagagagaa gaaagaaaag aagagaaaag ccgtactgaa 300
 gaccgacaca ggtactcgag gagaaaggag acccaaatta aggtgagaga atggacgata 360
 aggaactagg caaaaggata tggatatctgc ggtagaacat atgaaagaag cagcaccgac 420
 tgtttagcaa aaacacagca ctctgcagaa aagagaaatg t 461

<210> 4853
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-B9
 <400> 4853

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 tgggatatta agacacgtgc tgtcgggctg acattgagtg gacaccttgg tcatgtatat 120
 tcggtaaaca ctttcaatga tggaagattg ttggcaagtg gtattggaga tcagtctgtc 180

acgttgtgaa acattcaata tggtcacgag gagaggacat tgaattgttc aggtcttcag 240
aaaggacctg gtgatggact aacttctgtt tcagtgagtc gtcgtactcc ttatcgtaat 300
gcatctggtg cattgtgatc gaactgatag tattcgatgt acagaccggt gaacttttgc 360
tcaattatcg tcaacatgca tagtcagtag attctgtagc attctctagc aatgtatgat 420
agctcttatac 430

<210> 4854
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-050-Q1-E1-C10
<400> 4854

ttccccgggtc gacccacacg tccagtagcg aaacaagaga aggggaagtaa aaggtaagaa 60
agaggaaagg tttacgagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat 120
agaaatccga aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta 180
ctgaagaccg acacaggtac tcgaggagaa aggagaccca aattaagggtg agagaatgga 240
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 300
ccgactgttt agcaaaaaca cagcactctg cagaaaagag aaaatgtaaa gtatagagtg 360
tgcggcctgc caaatagtag agaagaaatc gatgaaagtg aaagcgagta aaagatgagg 420
tatagagaat ggcggtccta acag 444

<210> 4855
<211> 420
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-050-Q1-E1-C12
<400> 4855

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tgtttgccat gggatctcct atcatggaaa aacaaagatg gtatccttct acgtattcta 120
gttatccttc ctattcctat ccggtgtatc cttcctatcc ttatccggtg tatccaactg 180
ttcaacctta tgtttatcct acagtgcagc catatccaac ttatacgccg tattattcct 240

ccagttattc tacctataca caaaacagtg gattctactt tcccaattat tcaggacctg 300
 ttcanatcta tcctctgttt tcctaaatgc cggaaccaat gatagtttcc ttttccgata 360
 atgtgttggg ttttgtttct tctttttcga taaacttgtg gtttggattt aaaataaaaa 420

<210> 4856
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-C5
 <400> 4856

ggtctaggat tcccgggtcg acccaagcgt ccactatttt gcaacaacat gaacaaaatt 60
 tctctagttt cttttctatt atttggagtt gtcatatatg cagttgcagg acctctcaaa 120
 gactctcata tagcttccaa ggtagagga tacagcagtc aatatactcc aacctagact 180
 agcgagtata ctccaagcta tagtagtgaa tagactccta gctatagcag ctccctatagt 240
 ccagtttatt cttctcctta tcaatcctca tacagtccta cctatacaac ttatcgatgg 300
 attcaacctt gtgctcaagc ttgtgcggga tgcttttatt gctatcaaca atacaatttc 360
 tattatcgct acggtcttga tctctctac tgcaagaact ttgacaaata ctgcccattc 420
 ggatatg 427

<210> 4857
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-C7
 <400> 4857

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 cctaaattgg gtagcagtc ttcgaaacta agcaaaagtc ctgcgctca agaagtttgg 180
 agtaaaacag tgcattcctg ggggcgttct tactcaggaa agaaacgtta tgacaccgtg 240
 gagaaggaca cagagaagga accaaatata ttgagatac atgatctgtc gaagaaacag 300
 agcgggagcc aataagaaga gagtttgtga gttttcaata gaatactgtg cttgttgtta 360

taatttttcta taaatgattg tacatgctgt tttaagacaa a

401

<210> 4858

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C9

<400> 4858

ccgggtcgac ccacacgtcc agttgatttt cctctgggcg ggggacgttc gtagagagac 60

cgtttttgtc gtctgtccgt ggaccgcaaa tacaagcatt caagcacctc tttattggat 120

atcattttcta tggacaaggt agaagaacta aagtcactgg tcaattccgt ggaagaagac 180

tgcaataaat tttttgagaa cggaaacaag tcagctggag ttagagcaag aaagaacttg 240

caagaaatca aaaaacttgc tcaagaacta cgcatagaga tacaagcgac gaaacaaact 300

gaaaagtgat acttttcaact gtgcagaatc aaccatggct tgtgaaacta ttccagtttt 360

tcaaataaat accttttttgc gtttgtaacc caaaaaaaaa aacaaaaaac aaaaaaacia 420

aaaaaaaaac acaaccacca acac 444

<210> 4859

<211> 57

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D1

<400> 4859

ggtcgacgca cgcgtccgac cacgagtcgg acgaagaaag agaaagaaaa aaactga 57

<210> 4860

<211> 457

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D10

<400> 4860

ttcccgggtc gacccacacg tccaggcaga tccagtaaaa gtgtacgtcg gaggtctcga 60

agtggtagca tccgaagaag aagaagtgc agtagagatt catcagccga gagaggaaat 120

agcagggtcca ataacggaag tgacaatgag agtgagcgtc cttcgcgact ttcgcgagaa 180
aatagcagaa agcgtcgggtt aattgtatatt gttgctgggtg gtgtgacggc ttctgaaatg 240
cttttggtt atgaactttc caagaactcc aatcatgatg ttattattgg tggctctgta 300
atattgacac cgaggaagtt tattgagaat ctgaacaacg tagtgcaaga ttttggaat 360
ggtaatcaac tttctcccg c tgggtcgtcg tccgcattga gatagtttcg gatattccca 420
atctcatcga ataaagtgt caacaacgtt tgtgttg 457

<210> 4861
<211> 282
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-050-Q1-E1-D11
<400> 4861

attcccggtc gaccacgac gtccgattct gtagatacca ttatattata tctcggttga 60
taccaaaagt cataattaaa gtcgactcct ttcatacttt tttcccagtg acctagtatc 120
tggaattgct ggtccagcaa taaaagcct cctgggttgt ttgtaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaggga aaaaaacaaa aggataaaaa aaaaaataa aaatgaatgc 240
aaagtcaaaa ctcttctaata atgtcacaa aaattcaatt ca 282

<210> 4862
<211> 149
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-050-Q1-E1-D7
<400> 4862

gtcccggtc gacccaaacg tccagtgaat caaacctcaa gacagcttta cccctcgctg 60
actgacacgc gatggcagta agcatgtgat tgattcagga tcaagttgac ggacacagac 120
gagaaatacc aggaattgt tcacgtcag 149

<210> 4863
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D9

<400> 4863

cccgggtcga cccacacgtc caccacgcg tccgccacg cgtccgggac aagtcctcaa 60
gacgcagttt tatcaacaat taccagctga ttcgatgtcg acgaggacag tttcgactat 120
tctgaaaact tggggtaata ttacccattc tttgatatgt tcttttttga aagacttgga 180
atgatggata tatacttttt gtcggtagaa tgaaagctaa acctgtaatc tatcgagatg 240
cgatattgtt tttagaagca attttgattt ttcttttttg tcaacgtagc tacatttgct 300
tcctttttga atatatgata ttgtacaagt tttgacgtta tgcagcatga gactggcaac 360
ttttgaacat cacaactctc tacgagttgt tagtaataca ccataaacca gagatgagca 420
atcttcagat tcc 433

<210> 4864

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E12

<400> 4864

ttccccgggtc gaccacacg tccaggagag aataaaggta tgaatgccac cgtgttggtca 60
ctggatatag aaaggaagag tgtcagtttg aagccagata catagcagaa tatcagtttg 120
gtactaaatg atgtacctct acattatatt tgcaagagag ctcaatagaa gaagcaagta 180
gcttttaact aatgttttgt gcattccttg ttatagcgac ctcagcagtt ggagaatatt 240
tatattgttg tatgcttatg tgttctttta taacggtata ctgttatact ttatacgttc 300
gaatttataa caatgctgtg gaagatgttg tgtggaaaac gtaaactttg ctgaaataaa 360
gtcgtgtcta taccgattaa tttatgagga aactcgggga atcgtcaagt ttctaagatg 420
ttttgcggat gccttttttc agaaa 445

<210> 4865

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E5

<400> 4865

ggctctagaat tcccgggtcg acccacacgt ccaggaaatg gccaaacaag aagaaaaaca 60
ctttgcatgt ttcgaaaatt tgttatatga acgacgtagt cgtcctactt tgttgatgcc 120
tctgtggaaa gctgctggat tttctttggg agctttgact gcgctcgtgg gtgagaaaagc 180
tgctatggct tgtacagttg ctgtagaaga agtaatatca caagattaga acgatcaaatt 240
acgtactatt catgagaaga aatggcagga tgaagaagca ttgagagaca cgttgagaga 300
gttttagagac gatgaaatgg aacatcacga cagaggaata gaatatgacg ccgagtcggt 360
tcctttttat cgcgctttga ctcgagtcac tcagttgggt tgtaaagctg ctattgagat 420
tacgcgtcga gtataaaaag 439

<210> 4866

<211> 238

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E7

<400> 4866

cccgggttga cgcacacgtc cacggtagga cgccatattc cgtcttccgt tgttttgtac 60
gcacgtatt acatagccag ctgtcgtccg tttgctagt tagtgaagga gatcaacaag 120
ggaagaggag cgtcgcaaac cgagcctctt gaagacgagg agggttttca aacggtcgtg 180
aagagacagt aacagagtag ttcggaatgt tccgaagact gcaggaggcc cgcgagga 238

<210> 4867

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F10

<400> 4867

gggccgaccc aaacgtccgc ccacgcgtcc gctaaagttt cggagctcct tggggaaaag 60
atcaaggctg gaagcgaaga attttcaaca aggactcat cactggtgga tgccgcttct 120
ctggtgagac caaagagatt ggcgaaaaat tttcctttga agagttctgg cagtagaatt 180
tctagagtct ttttgagaca ggacttaata aacctgtgga acgcactggt ggatgaggaa 240

aataactaacg agttgaatat tttatctgct gctagtgggt taggcaagag tatatatctt 300
 tatcttatcg ctgtttttgc ccgacacttt ggaatcccag tgcagtatat tggaaataca 360
 ggagatctgc tcagagatcg ttctcatgaa gagttagaag ctagcaacaa ctttgcagca 420
 ctgctgctgt tcatgaattt gaagatt 447

<210> 4868
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-F11
 <400> 4868

ccgggtcgac ccacgacgtc caggcaaaag atggacgccg ctgtggagtt ttacgaaac 60
 tgtaaacaac atattgacaa agccttggac cgtccctatc taacttccga ctatttaaaa 120
 gactttgttc gttctattca atggacagaa cccttcatat tggggttaat atgtgctcac 180
 ttgattctgg cttttattac agtgaaaact agaaacaaga ccaacttgca aaactccatc 240
 tttttcactt cagttattac tgtattcaat gtgaagaact tgaacaagtt agggctctgag 300
 aattggaaac aaatagctag caaaaactat ttcgacgaga acggtttctt tatatttgta 360
 tttgtagctt tacccttggt gttaatttgg aactttatta tgttgcacaa tggttatttg 420
 gctttacaaa ctatcaagga aattagacga gag 453

<210> 4869
 <211> 458
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-050-Q1-E1-F12
 <400> 4869

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 tgtatagaat cgagcaatgt tggttatgat ttgtccttgg ttatcgagtt ggatgccttg 120
 ttgggaacga tcatgcaatg gagaggggaat gaaacattgg cacaacaatg cttggatagt 180
 ataagaagaa aggattcctt gccatgtttt catgaatcgg agtcccaaaa gaatatctgt 240

tcctgtgatt atctgctgga ctatagtatg tggatcatgtt tggagagttt tgtgggtaag 300
cagcgtagta gtagcgataa taaggaagat gtttctcctg ttacgtggat aacgaaagaa 360
gatacatcgg aatgctgtcg ctatttggtg gaaactgggt taacagcaat acaggaagaa 420
ttggaatggg aaaaaaacat tgcattagct aaagtatc 458

<210> 4870
<211> 456
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F9

<400> 4870

cccggtcgga ccacacgtc caaaaatgtt cggactcgcg aggcaactca cctctagttc 60
ttaaagatac ttttcgactg aaataagttc aaaatcgagg tgcttaccgt gcgaaggaat 120
aggaaaaact ttggaaaagg aacaagtcca ggaactgctg aaaaaggtag aaggttgga 180
cgtttcctct gataataagc aaatttccaa aaacttgcaa ctgcctgatt ttatgtcggc 240
tattcgttat tttcagaaaa tagctgatgt agcggaggct gaaggtagtc atcccgattt 300
gcatttgact ggggtataaca aagttagaat tgatctgtca actcatgctt tgaatggctt 360

gactgagaat gactttataa tggctatgaa gattgactct cttggacaag gagcctgaaa 420
agatattttg cgaaataaag caatagaaca atcagt 456

<210> 4871
<211> 427
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G10

<400> 4871

ccgggtcgac ccaagcgctc gaccacgcgt ccgcccacgc gtccggagat ttcgaaatag 60
tcactacgaa caaatataca agcagccttg aagccgaaaa gtcacatcac acaactcaaa 120
actcagtttc atctagtgac ttgggaacta ttattcgaaa attggtggaa aaaatacatc 180
tcgattcttt acaacagcca tcaactgggtg aagaacaaag tacatttacg agacaatcag 240
catctttaat accagagcca acatccacag gaccttctga tttgttgctg tttcctccac 300

aacaacttgg tccaatgtg gtgcgcattc cttggaaagg atccaatggt cgaacgtag 360
 agttgcacat caatgtgggt gctgaagagg atcttcgagt ggcctcacct actgcaatat 420
 tagcccc 427

<210> 4872
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-G11
 <400> 4872

ccccgggtcga cccacgacgt ccaattgttt tgaaaaagag aggcccatcc tcaccactac 60
 tacgagagaa gaaaccatga ctacgcagtt agaaagagga gaagaaagcg ttccacaaca 120
 ggaagaagaa aatattcccc aggacgcca agacttggtc acctatgttc aaaacttggt 180
 gtctcagatg cagagccgtt ttcaaaccat ggcagactct atactatgca gaattgacga 240
 gatgggtagt cgtatagacg aactggagaa gagcatcgat gagttgatgg aacagactgg 300
 agtaaaggaa ggcgatggaa cagagtctgg tgaggttact acgacaagtc gtggggagtg 360
 aatgcttcgg ttgtagtacg ttggatatct tccatagtag ctctactat ctatccattt 420

gtggttgcgt cgaagaataa aagagtgcg 449

<210> 4873
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-050-Q1-E1-G12
 <400> 4873

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 atgcagtaaa ctacgagtag gacggtaaga acccataatt cttgactaaa taagtttaag 120
 gaagagagag aatcatgaag tagaggaagt ggggtaagag atgaaagacc actgcatgaa 180
 gataaggaat ctaactgagt aaggaaaata agcttaagct aatttggtg gggaaagtaaa 240
 gcctaagaaa gagtaaatta tgcaagcaaa ggcagtagag aagtataata gcagaagcat 300
 gcttgaagaa aaagaaagag atttcagaaa gggaagaaaa gtcagctata gagaacaagt 360

gaaggagaac tcantaagat gagagcaccg aacgatcgaa gaagaaactt tgggggtaac 420
acgttaatgt ggtgtagag aacgtatc 448

<210> 4874
<211> 453
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G9

<400> 4874

ccccgggtcga cccacacgtc cgcccacgcg tccgggtcgt tacttgatgc agagacaaat 60
ccccatttca gaactctcaa aggagcaatt gcagatcttg tacgatagaa tggaacaaga 120
actcgaacac ttgaggagca gtcttcgtac tctccatacg gcagttagcc ggttacagag 180
aagtttgcag tgtttagatt ccctttctca caaagaaaag ggttctcttg tgatggttcc 240
tctaactagc tcgctctatg tacctggaag tttagcagat acaaagactg tccttgtcga 300
tattggaacc ggttattatg tcaaaagctc aattgacaag gcggaagatt acctcaagaa 360
gcgtttgaaa acagtaaaga cggaagtaga aaaactccaa caactagtat ccacgaaaca 420
agagcaatat gaatatgtat ccgtggctct acg 453

<210> 4875
<211> 330
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-H10

<400> 4875

gacccaagcg tccaccacg cgtccgcca cgcggtcgcg gacgcgtggg atgtaaaata 60
gttgacaagg gtttattgca aaaaggttga atagtaactc gttctatatg gttcgttgag 120
tattgtctag agacaagtgg gacaattagt atccaccttt atcttcgcat atacataaat 180
atatttattt atttaaaaaa aaaaaataa aaaaaaaaaa aaaaaaagaa ataaaaaaaaa 240
aaaaaaaaaa aagaagaaaa aaacgggggg acgccccaaa ggttcaagct ttagatgtca 300
gtactggcga cttatgggca ctttaaaagg 330

<210> 4876
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-A10

 <400> 4876

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 agccttacca aacaactagc caaggatatg aagaaggaat tcattggagt agaagaatat 120
 ttcatacaag gaatggaata ttggctctcc tgctttatca tagagataaa gtgttggttc 180
 aaaaagtcgt tggatattta ttagtattgt tgatatgttt ggagtgtatt cggttgcata 240
 gtagttggct gaatgagttg gcaagtcgct tattttatcc cattatgaga aagaacgaga 300
 ctagacgttt cagtggaatg gggtattatc ttgcgggagt cttgtatgct tcttggtatt 360
 ttgactcggg tggttttgat ttgggtgtta ttcatttggc tattggtgat cctattgctg 420
 ccattttt 428

<210> 4877
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-051-Q1-E1-A11

 <400> 4877

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 aacacggagg acgacagtag cgatgggatt gtttagtaga ctgtttgtga aaccgagtcg 120
 tgtaccgcaa agagtcgtag agtttcaaaa gcgcaaggcg gaaggctact ttacatacaa 180
 cgccgggaag tacgaccgat acatcaacac acctatttac ctgtttgtgt ccttcaccgg 240
 tctttatgcc tttattgacg gttgtctttg ggcggcagga aagaaggaaa gtcaatcgtg 300
 aatagcgtnt tttgtccttg tggacagtct tatgaactag tgattcgttt gttctgcc 358

<210> 4878
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A12

<400> 4878

ggtagcgggc aggaattccc gggccgaccc acgcgtcagc cttttcggag gtaatatgtc 60
gtacaacgaa ctggtaaagt ggcagcattc acaaaggaga aagcagcaag ttgattagag 120
catctataca tatatatcgt taccgacagg gatcgggaga gagagaaatt ttacagtctg 180
tgcatttttc ggtgaacaaa tgtggatatt ttcgtttcca ttcttcaagt tgtcgacatc 240
gccatctatc cgagttgtaa aacagagacg gatcgaaata acggtatcct gcaatccatt 300
ctggagggtat acgttggaga caaagctgcc gcatttcatt gactcggaa actttacctc 360
tcacctgtcg agattcatta gaaattcttc ccaacccatc ataccacaat aattttcgtt 420
ccagattgtc caacgag 437

<210> 4879

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A3

<400> 4879

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atgagaatac gtcgtttgaa cgaacaagga gaagaagaag acaaagaaga cgaacaagaa 120
gaaatgcaaa gtgaagagtt gacaaggagt tgttcggaat ttcttcttcc gtattcttcc 180
gaaatggtag actgtataac ctcatcgagc gatgacgacg aagagaaaga gtcgttcgtg 240
gcttctcgac ttggacaaaa actgggaaag atgctggaaa gttatgcctc gcattgtagt 300
ggaaaaaata agactttggt gtttcgtcat gttccggacg acacaccaac gaagcattgg 360
cttatcgaca agttcaagtt tacaacgaga aacttacggg ttaccttgtc acctggagtc 420
cgtcgaagaa ggaagaataa gag 443

<210> 4880

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-A9

<400> 4880

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gaatggcaac agataaagtc agctaagaag atatactctt atgtaaaaga atcaaaaact 120
aaagaatatt tggagctaga cgattcggtg cagcagccag tggattcatc ttgtagcacc 180
aagtggctgt ttattgcaac cccactggtg gaagttgctt gtactgatgg gcagcgaatt 240
gaaatgattc ctttgaagaa agatataaag gaattgtttt tctctacttt aaagaagaac 300
tttgagtcca acgaagcgtc atgggagtg agtgtagttg aaaccgcagt tgctgttttt 360
atccagtatt atgaacagtg tgtggaacag tactatctag caagcacaga ttatgagcta 420
cct 423

<210> 4881

<211> 396

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-B1

<400> 4881

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gccaaagtgt gttgtttag tgtacgaggg ttggtcattt gttgagctga agagtcaatg 120
aacaagcttc agttgctata cgtaaccaa caagctgttt caaaagcatg gcaaagagaa 180
cagaaaaggt tatactccga gaagaaatca gttgcagaag gaactttggg aagcaggtgg 240
aaggaaagag aaactgcaca agagagcgcg tactttaatc gtgaagatga gcaggcagta 300
caaaggttag cagcgaaact tcggcagcaa attgagccat cggaggaagt actcgcccaa 360
caaagaaaag gcgtggcaga natcttaca aaacac 396

<210> 4882

<211> 370

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-B11

<400> 4882

acccacgcgt cagcccacgc gtccgcccac gcgtccgttc cgattccggc aaaggaggag 60
 cctttttcaa actaggcata gtatggatag aggatangag agagggatgg gtatcgagtt 120
 ggggatcgta gtagatggca aatgtgtgtg gagtattgtt ttatcacgat aaacactgtc 180
 ttcactaaaa aaaaaaaaaa aaaaataaat caaaagaaat aaaaaaaaaa acaaaaaaaaa 240
 aaaaaacaaa aaaaaaataa aatgaaaaaa acaaaaaaaaa cattcaaaat taaaagaaaa 300
 aaaaaaaggg gggcccccca aaaggattca accttactta cccgtgcatg caaattcaaa 360
 gccctccaaa 370

<210> 4883
 <211> 373
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-B12
 <400> 4883

taccggtcac gaattaccgg gctgaccac gcgtcaacc acgcgtccgc ccacgcgtcc 60
 ggaagtaaat agacgtttga aaggcggtcca gtatgaaagg agaaacgagt gtagcactgt 120
 ctagtcgtcc aactcagcga aacagcaata actgtgaaaa tgcattaaac taccattagg 180
 acggaaaaac ccataatcc tggacaaaat aggttaagga aggaaaaaaa accataaatt 240
 aaagaagttg gggtaaaaaa taaagaacaa tgccataaga ataaggaatc taactgatta 300
 aggaaaataa gcttaaccta gtttggctgg ggaattaaag cctaagaagg agtaaattag 360
 gcaaccaaag gca 373

<210> 4884
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-C1
 <400> 4884

ggtaccggtt aggaattccc tgctcgacc acgcgtacgt tttttttttt taacacaact 60
 attctttatt ttcgcaaacc ttgtgccttc actcgaaaaa tgtgtcttcc tttgcaaaaa 120
 tcggcatact tttgcgtcga taataatgcg caaacgaaag actagcggca agagctaaaa 180

caggggcacc aacagtcagt gatggacaaa cctcaagtgg atcattccac gttggtaaag 240
 atagacttgt ctcaaggcag ctttaatgta ctccaagact gtgacaaaga tttagaatgt 300
 gatcataatg ccaagtttca gttggaactt atgcagtagc gtctcttttc acctggctgt 360
 cggacgatag aaaatg 376

<210> 4885
 <211> 207
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-051-Q1-E1-C10
 <400> 4885

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 agatagcana gtgactagaa atactacgac ggaagaaacg gaaacacatc ctttgcaagt 120
 gcctcgtagg gaacctanag gaaaggtaag anagagagct ctatggtgag gtttaataaa 180
 tagcatagca cctacaaaac gatgttg 207

<210> 4886
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-C11
 <400> 4886

accacgcgt cagagagaat aaggagagga tagaaagaat gtcgggctgg tttgttttgt 60
 acactttcgt tgtattttta caatatgtaa acaaaacctg tacgttttgt agatataact 120
 ggttatgact caatgttagt catagctgag tgaaaatata tttaaaacta caacattttt 180
 gttcttgttt aaaatagagt caaaacaata aaagtggccg tgtactcact tgctccaca 240
 tatctacaac taaaacaagc ctctcgtcct cacacgcac cctatgaaaa agg 294

<210> 4887
 <211> 197
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C12

<400> 4887

taccggtcag gaattcccgg gccgaccac gcgtcagggc attaaagttg gtaggcaacg 60
atggatatgt tctaacagaa gctggttttg gtgcagacat tggtttgag aaattcgtga 120
atattaagtg ccgtgcttct ggtttagttc ccaattgtgc tgttatttg gctacaattc 180
gagctttgaa aatgcat 197

<210> 4888

<211> 108

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C8

<400> 4888

ggtacggat ggaattcccg gctcgacca cgcgtacgga gaataataat ttgcacgcaa 60
ggcgcgcgga ctcgaccgtg ttgggtgtaa ttgtggtctc agtaacgt 108

<210> 4889

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D12

<400> 4889

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gccacgcgt 60
ccgcccacgc gtccgcccac gcgtccgccc acgcgtccgc ccacgcgtcc gccacgcgt 120
ccgcccacgc gtccgcttgc atttggtgaa aagacaaaga acttggttat tctcatattc 180
ggtttagtag gtatgctgat cggaacttat gtttccatta tggaaatgca gaaaaatccg 240
gagtattgaa ttgatatggc attgttctcc tctttctctt gttgtacaag ttacaacaa 300
aaagcccggc tttgggtttt atacttttca tgtaaatttt cctttc 346

<210> 4890

<211> 66

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D2

<400> 4890

tgcctggtcc aacttttcgg ttctatcctc acactctgta cagggtcgac ccgtgcgtgg 60

aaagcc 66

<210> 4891

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D6

<400> 4891

cgaccacgc gtacgcccac gcgtccgctt ttttttattg aaacacaaga ctttacgagt 60

agtgaatagg cgttttactt gttttgttta tagagttgaa cgaaactttg aaagattccg 120

tagcttgtca tgtctgttat ttgctcacct cggagcttga cagagagttt cttggttcga 180

ctccaaatag taagcttaag agactgtttt gtcacactcc agcatggtgg gatccct 237

<210> 4892

<211> 399

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E10

<400> 4892

gggccgaccc acgcgtcagc gatctttggc tttatcgtcg agtcctgaat acgagcatat 60

tccagaagaa gaacgaaaaa aggttttggg caaggttcaa gaggcagaaa attggctgtc 120

tcaacaaatt cccatatttg agaaactgca aaaacatgaa gattgtccag ttagtgtagc 180

acaaattcgt cagaagagta aggcagttga acagttttgt caaccgatta tgaatcgtcc 240

caaactgct ccccctaaga agaacaagga ggaagagtca gcttcttcta ccaccaacaa 300

ggataatagt acgacaacaa cccaaaaaga ggattcttct gagcagatgc agacagaaac 360

agaggacgac aagagtgcgg aaaacaaaga ttccccaat 399

<210> 4893

<211> 415

<212> DNA

tgctgctgct tcctgaagaa gagattgctt cgacgcaaga tgtccaacaa catcaacgcc 120
 tttatcaatc cactcttctc ttgtcacaag gtatcctttc aagacgcaa gaaaagtatt 180
 tgttggcaga agaagaaatc caggccagtc aaccgaata gtctcggtat ccagtcgggt 240
 gcctctccac cagtcaaagc aaacaaactc tttcaaatat cttgtgact gacctcggca 300
 tttgcatatt catcccattg ctttgetaca gaaggcactg gagaaccttt ggggtgctgat 360
 gacctcctg tgttggctgt g 381

<210> 4896
 <211> 337
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-F11
 <400> 4896

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 atcgcaaaaa ggtatgtgta gagtcacga agtctccatc taagacaaac tcgggagcct 120
 ctctatcgtc taatagtcgt ttttgcgaca ggactagaca tccgtgact caggattcag 180
 ccactaattt taactatcag gaacacgctg gttcacacca catagtagtt gagagtgtgt 240
 cttcaactag ggtttgcctt gattgtcgta tagctagatt gacgacttca catagtttct 300
 tgtcctcaat atgtatTTTT gatacacgtt acatata 337

<210> 4897
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-F3
 <400> 4897

gaatgcatgc gcttattgtc tatgatgact tgtcaaaaca agcagttgcc taccgtcaaa 60
 tgtctttgtt gcttagacga ccaccaggac gtgaagccta tcttgagat gtcttttact 120
 tgcactctcg tctgttgga agagctgcc aaatgtcaga tgctcacggt gctggttctt 180
 tgaccgcttt gcctattatt gaaaccaag ctggagatgt gtctgcctat attccaacga 240
 atgtgattag tataaccgat ggacaaatct ttttggagtc agaactgttt tataaaggcc 300

agagacctgc catcaatgtt ggactttctg tttccagagt tggttctgca gctcaaccga 360
aatg 364

<210> 4898
<211> 369
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E1-F5
<400> 4898

ggtcaggaat tcccggctcg acccacgcgt acgcggcatt cgacgacgcc ttcgagctgg 60
agcagcgttg agtaatttct gaaacacaaa tatgcgtgcc aagtggaaaa agaagagaac 120
acgacggttg aagcgcaaga gaagaaagat gagacagcgt tccaagtaac ggaagaatcc 180
tcggacgtct gagttgaata gagttcctaa aacgtgggaa aactctatctt gcaactcttg 240
cgcagtgatt atatcctgct acggaagggtt ggaagtgttt ccgaggattg ttcgcaagtt 300
atgataaaag gttcttgtgg tttttgtttt caacttgtaa atgccacttg tcagtcattt 360
tattcgagt 369

<210> 4899
<211> 362
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E1-F6
<400> 4899

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gaggaaaggt ttacgagaga aggaagtaga aagaagagag tgtaaggcgg cgtcataata 120
gaaatccgaa aggagtagaa gaaaagagag agaagaaaga aaagaagaga aaagccgtac 180
tgaagaccga cacaggfact cgaggagaaa ggagacccaa attaaggtga gagaatggac 240
gataaggaac taggcaaaag gatatggtat ctgcggtaga acatatgaaa gaagcagcac 300
cgactgttta gcaaaaacac agcactctgc agaaaagaga aaatgtacag taaagagtgt 360
gc 362

<210> 4900

<211> 350
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G10

 <400> 4900

 ccacgcgtca gcggaagcgt gggcggacgc gtggggaaat aaagaaactg cacaagagag 60
 cgcgtacttt aatcgtgaag atgagcaggc agtacaaagg ttagcagcga aacttcggca 120
 gcaaattgag ccatcggagg aagtactcgc ccaacaaaga aaaggcgtgg cagaaatctt 180
 acaaaaacac ggtgtccagc ctaatcaaag tttgattgaa gatattgtcc gtttctttca 240
 ataatccctc cgtgtttgat gtttagctgc ggttcaacta gagttttgtt tgggaacacg 300
 ttggatccag taaagaacaa aagaacttct ttgtaaaaaa acaaacaaaa 350

<210> 4901
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G11

 <400> 4901

gtctagaatt accgggccga cgcacgcgtc caccacgcg tccgctttgg gaacattggt 60
 attggttggt gaaagtttat agaaaatgac aaaaggaact tcgagttttg gtaagagaaa 120
 taacaaaact cacgttttat gtatacgtcg tgggcgaagg gcgtaccatc tacagaagaa 180
 gcgttggtgt tcttgtgggt acccatctgc taaaaagaga aaattcaact ggtcggaaaa 240
 gtcgaaaaga aggcgaacga caggcactgg tcgaatgcgg tat ttgagac acctaccgcg 300
 acgattcaaa aatggtttta gagaagggtg caaggcttct tctaaacgtc ctgctccagc 360
 accttcagca gtataataat tgacaacttt tgtcaaaata taaactcgcg ccagttcaa 420
 acagatgaga caataaagcc tttcccttgg gttc 454

<210> 4902
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G6

<400> 4902

cggtcgacc cacgcgtacg gtgtgctttg ctgggtcaagc cattccaagg actcgccaag 60

cctttgcaga aatacactgc tctccgcaag tggtttggag tgtataaata tgattgtcac 120

agaaagaacc tcctttcgac atgcctctcc cgagttaata gaaggatggg tactaaagga 180

agggaagctt tttagaacca aagacaagag atatctgcga atagccaacg gcaccctttc 240

caaccacaaa gcggagaatg aaccagcaac ttgggatttg gatctaacag agtgtaaagt 300

gagagaaggt ccagaaaaat atgaaatacg cctcgagcta cctaacagag tcgtttcctt 360

ttttgcagac gaatgacgag accacactag atgggttacg ggttttttaa cgagcaggtt 420

t 421

<210> 4903

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-G8

<400> 4903

ggtaccgggt aggaattccc tgctcgaccc acgcgtacga atgcaccagc tcatgtggag 60

aatgtcgttg aacctagcaa ccacttttct tatccaagtt tctatccaga gaatatgcca 120

tttcccacag gatatcctcc tctcctatg acttcaggag tatggccata tccgtatttt 180

ccatttcgtt atttcggaca atcctttgcg cctataaata atgactatag caccaacaat 240

aatattccct ggaaagattc atctgtcgtc agtgcacga aaccaaactt ggtggagaaa 300

ccgaaagtca atgaaagttc tatgaagaga aagcatcatg gatgagagga tgataggacc 360

gggcgttctt catcctcg 378

<210> 4904

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-G9

<400> 4904

ggtcaggaat taccgggccc acccacgct caggttgggg gtggttcgtg gatgaccttt 60

ctactcātac ttgcctttgt tgcgggttat tttttgggcg aacgaggcaa aaagaagaaa 120
 agtccgaaat atagttaggt accgcctacc ttaaaccacc tttcagagtt tccagcgaat 180
 tcgaacaaca gtcgtggtac agttagaact tgtaaagaag agtgtaaatt ggtactttgt 240
 gttcgttccg atttgaagat gggaaagggt aaaatagctg cacagtgtgg acacgcaaca 300
 ctcggtgcct atcaagatac acttcggacc aaccctgggt atttatggaa gtgggaagca 360
 gatggtcagc caaagattgc actttcagta tcttctcttc aagaaatgaa aaattt 416

<210> 4905
 <211> 289
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-H11
 <400> 4905

cacgcgtcag gtcgtatcca gtcgcttgaa ctcgtatggt tgaacctact gaaagtcaat 60
 ctcacgcaaa gttggatcgt atttgtgatc ccgtgttgag tagaatagaa tatcttcggg 120
 atactgacaa taggaagatg gagatcgaaa ggaaaccgat caagtcgcta ccacagattg 180
 caaatgtgga atcaacagag taattgggtc catccctcat cacgtctctc ggctgcatac 240

cgagcaattg ggttccacac tataaaaatc cggcccaccg taacgtaga 289

<210> 4906
 <211> 286
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-H2
 <400> 4906

tcaggaatta ccgggtcgag ccacgcgtcc gattgaaaat catggtagac accaatctta 60
 atgacggtgc tagtgctgct ctttggactt gccgccaggt tctctagaca attgtgtcag 120
 cattttcagc aacaataatt ggacctgatg gaacgaaagc agataacata tggaacgatg 180
 ccctatatta tcatggaaaa gtggtgaact tttgtgcaga ttcggcgcta tcagtttttg 240
 aaagtggcga tcatggagca tgtcaacatg tgatggcatt tgcttc 286

<210> 4907

<211> 293
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-H5

 <400> 4907

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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagaaccaca aaaaaacaaa 120
 aaaagggcag ccgcccacga ggatccaacc ttcgatccgc ttgcaagcga agtccgggcc 180
 ctcccagtgt gtcccctaac ttcgtttaac tggcgcgtctt tttccaacct cttgactgga 240
 aaatccctgc cgtcagccaa tttagccacg ttgcccgcaca tccccctttc ccc 293

<210> 4908
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-H6

 <400> 4908

 aattccccgc tgcaccacg cgtacgtagc tccaaggtac acgaaagggt tgctcagctc 60
 tgttccccag ggagaagcca agtatattatc acagagaata ggattattact tgtttggtttt 120
 acaagtgaag cgagaaagggt tctcttctag gagtatgcgc atagatggac ttggtgggta 180
 cctcaaaact gaaaggcgaa aacggcagaa atcccagggt agacggtaac aaccttccaa 240
 tagaaacatc ggaaagagat gaagagacta cagaagaagt tgtttcttca ttctgggact 300
 ggcacatttt ccgtagaatc ttaaacttgg gaagttgact gttacggtcg catgtg 356

<210> 4909
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-A12

 <400> 4909

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 gtaaagtggc agcattcaca aaggagaaag cagcaagttg attagagcat ctatacatat 120

atatcgttac cgacagggat cgggagagag agaaatttta cagtctgtgc atttttcggt 180
 gaacaaatgt ggatattttc gtttccattc ttcaagttgt cgacatcgcc atctatccga 240
 gttgtaaaac agagacggat cgaaataacg gtatcctgca atccattctg gaggtatacg 300
 ttggagacaa agctgccgca tttcattgac tcggaacact ttacctctca cctgtcgaga 360
 ttcattagaa attcttccca acccatcata ccacaataat tttcgttcca gattgtccaa 420
 c 421

<210> 4910
 <211> 189
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-A3
 <400> 4910

acgccgccag tacggtcagg aattcacggg tcgagcgcac gcgtcaggca aaaaacctca 60
 catggagtta tgactcgttt gttactgcag tctggagcag gaattattcc ttcaacactt 120
 ttcgtagtaa ttgtgttttg gtgtagtttt ttttgttata ataagaataa agaaagtcca 180
 gagttgttg 189

<210> 4911
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-A6
 <400> 4911

acgcgtccag gtaccggtca ggaattcccg ggccgaccca cgcgtcagcc caagcatccg 60
 tccacgcgtc cgcgcacgac tccgcacacg cgtccggaca caatatatca aaagtttttag 120
 attggatgaa tgctgatgaa atgttatcga gaggctttta agaacatatt tatgaggttt 180
 tccaatatag gcctgcacac tgtcaaattg gacttttctc cgccattatg ctgcaagatg 240
 tacgagaaat gacggagaag tttatgagag atccagttgt gatthttggtg aagaaagatg 300
 aacttacact ggaacgtatc acacaatact atataccact ggaaatcgac gagtacaagt 360
 ttgatacttt acgtgacctc tacgaaactt tgactgttac gcaggctata acttacgtga 420

ctacacggag gaaagttgac tggctcacac 450

<210> 4912
<211> 377
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A8

<400> 4912

ccccggccga cccacgcgtc aggaggtgta tgatgcaagc aaagaagtga cgcagtagat 60
cagagagtaa cacatgcaag taggtaaagc gaacgggtga gtaaagaggt gtgaaagagt 120
ggaagagcat gaaagcacag aagaatgtaa gaaatggtag agtaaaaacc atacaggaag 180
taaaagcggg aatctgagag gaggaagcc acattgggac tgagaaaagg tccatacaag 240
agaagtcagc agtggggaaa attgggcaat gtacaggga gtatgacca gtaatgagga 300
gtggaataaa cagaagagga agtaagagga gggaatgaag ggaagttatg gcaaaaacac 360
ctgccagcag cagcgggt 377

<210> 4913
<211> 128
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B1

<400> 4913

ggtcaggaat accgggtcga gccacgcgtc cgcccacgcg tccgaatggg catagatgtc 60
atggcaacca aggaaggttt catacaacac agtcactcta caaaagacag cctccaattg 120
caactttg 128

<210> 4914
<211> 356
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B10

<400> 4914

gccacgcgtc agcccaagcg tccgtctcag cccaagtagt agaagaatat gttggcgttt 60

acatgtctca cagactgtcg ttggttagag acttctcgat tctccagatg tgcgaaagcc 120
aatgaggtct cgttgcgacg tagttcccag tgtgcacact cttggaggag tgtttcgatg 180
aagtagagtc cctattcgat aactaccgac acatcagaag gacatattgt tcccgggtact 240
ttttcaagat ttgagtttct tgactgtcga gtcaacggtc caaccgtctt gaagcctagc 300
atacttgact ttacagtgtc gaatgtatca gatgctgcct ttggagaatg gagagc 356

<210> 4915
<211> 369
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E2-B2
<400> 4915

ggtcaggaat accggggccga gccacgcgtc cgcccaagcg tccgcccacg cgtccgatac 60
gggaaagcag taaaagaaga aagagaaagg aaaaaactga gtatcaggaa gaaaagaggg 120
agtagatgag gaaagaaaga tcaaggaagt aagagtaaga gaaggagtaa tgtgaatgaa 180
agcaggaaag tattttgaaga agagagtgtg aagcgcgtac cttttgcata atgtcccagc 240
gagtgaaga ggaagcaaaa agaaagaaaa agaagtagcc aggtaagacc cgaagctagt 300

tgatcttatg ctgtccaagc caagtaaggc gtaaccagta tccgtggaaa aagatctgga 360
agagatggc 369

<210> 4916
<211> 110
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E2-B8
<400> 4916

gaagtcccgg gcagaccac acgtcagtac tcacttgta acacaactag tottaattat 60
cgcaagacct gtgccttcag acgaaagatg tgtcttcctt tgcaaaaatc 110

<210> 4917
<211> 401
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-C12

<400> 4917

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ggtgcagaca ttggtttgga gaaattcgtg aatattaagt gccgtgcttc tggtttagtt 120
cccaattgtg ctgttattgt ggctacaagt cgagctttga aaatgcatgg cggtggtcct 180
caagtatctg ctgggacacc acttcctcat gaatacactc aagaaaattt gcaactggta 240
gaaaatggaa tgtgcaactt aagaagacat attgccaata cgagagcttt tggataacct 300
gtggttgtag ctttgaacaa gttccagtac gatgcagacc cagaaatata gctcgtaata 360
cacatatgta aggaagcacg tgcctttgat gcagttttgg c 401

<210> 4918

<211> 315

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-D6

<400> 4918

ggtatcggtc aggaagtccg ggccgaccca cacgtcaggc caagcatcag cttttattta 60
gagatccact agtatttacg agtgatgcag tagcatctca ctagtatatg cctacacagc 120
gtttgtgaac tgaggagaag tatgtgagaa aagacgagag atatctgcat gcaagaggag 180
atcaaatttc ctgtaatgga atatcattga gggtgagaat cccgtttacc tcttttcctt 240
gtatggagac tgcgttacga aatgtcctgt tctgtagtct ggttgtttgg tagtacagcc 300
ttaattttgt gggtg 315

<210> 4919

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-E12

<400> 4919

cacgcgtcag cccaagcgtc cgcgacgcga ttccatgttg aaagagggtta cacgtatatt 60
gtccgatctc aagtttcagg tgcttcaaga tggaaaacct caggtgataa cttcggatca 120

agttattcggg ggaagaaag tagtattggt tgggttacct ggtgccttta ctccaacctg 180
ctctaggcag caccttccag gctttggaca gaaggttgat gaaatcaaat cgaaaggagt 240
agatacagtc gcttgtttag ctgtcaatga cccttttgta ttacatcagt gggcagagtc 300
acagggagtg gcaggaaaaa ttctcatggt agcagatggt ggtgcgcaat ctgtcaagaa 360
acttggaactg gatatcgata ctggtgactt tgggtggtatt cg 402

<210> 4920
<211> 231
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E2-E6
<400> 4920

ccgggcccag ccacacgtca gcccacgcgt ccgcgcagcg attccatggt caaagacggt 60
acacgtatag tgtccgatct caagtttcag gtgcttcacg atggaaaacc tcacgtgata 120
acttcggatg aggtatgcgg aggaaagaaa gtaggggtgt ttgcgttacc tgggtgccttt 180
actccaacct gcgtcaggca gcaccttcca cgctttcggc agaaggttga t 231

<210> 4921
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-051-Q1-E2-E7
<400> 4921

aattcccggg ccgaccacg cgtcagccca cgcgtccgcc cacgcgtccg ggaagcagaa 60
gtattcgtag caaagttggg tagctgggag acagtcacga aactgttcta tcagacagtg 120
aaatgctttc ctaatcaagt gggaaactac caattacttg ttcagcacga gtgaggataa 180
cttgaacaaa tctcatatg gaatgtgaca caacgtatct caactaagaa acaatgtgaa 240
atatatccaa caacgtcact ttttattatt gagacaaact tgatggcgga gcacaaaaca 300
accacaaaac tattgcgtct gcattctata tctcgcagt tgaaatagaa attcgaagcc 360
tatttgagga gtggccagtt gaagtcact gttgaagaaa ccctttctct gtcaaaccga 420
aaaacgcccc atatatgttg tttt 444

<210> 4922
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-F10

 <400> 4922

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 ctgatatgac tggacatata tctgatagta ttgtttatca ctcaggagga gatgtctctt 120
 ctgatcaaaa ttccgtgggt tctcgagaag atagtatacc ggagagttac cactcaactc 180
 gtcgtcgtga ttatattgat tggaatactt tgaaaaatca ctttcacctt ccgatgaatg 240
 aagcttcagc caaactgggt gtatgtgtga cggtattgaa gaaaatatgt cgtcgtttcg 300
 gaatatcgcg atggccacac cgcaaattga aatctgtagc tagacacatt gaaagacaag 360
 aacgagcttt ttctgtagca ccaggggtag aaaacctgtc ttatga 406

<210> 4923
 <211> 176
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F11

<400> 4923

gtctgtaatt ttcacgtgcg gttacaaacg attttgcata tctttgttgg ttgcattcca 60
 tcgcaaaaat gcattaataa agtcatccaa ttctccatct aagacaaact cgggagactc 120
 tctatggtct aatagtcggt tatgcgacag gactagacat ccttgcactc aggatt 176

<210> 4924
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F3

<400> 4924

ggtctagaat atccgggtcg gccacgcgt caggaatgca tgcgcttatt gtctatgatg 60
 acttgatcaa acaagcagtt gcctaccgtc aaatgtcttt gttgcttaga cgaccaccag 120

gacgtgaagc ctatcctgga gatgtctttt acttgcactc tcgtctgttg gaaagagctg 180
 ccaaaatgtc agatgctcac ggtgctggtt ctttgaccgc tttgcctatt attgaaaccc 240
 aagctggaga tgtgtctgcc tatattccaa cgaatgtgat tagtataacc gatggacaaa 300
 tcttttttga gtcagaactg ttttataaag gccagagacc tgccatcaat gttggacttt 360
 ctgtttccag agttggttct gcagctcaac cgaaatgttt gaagcaag 408

<210> 4925
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-F4
 <400> 4925

cgcgtcagga ttgcatgcgc ctagtgtcta tgatgacttg tcaagacacg cagttggcta 60
 ccgtcaaattg tctttgttgc ttagacgacc accaggacgt gaagcctatc ctggagatgt 120
 cttttacgtg cactctcgtc tgttggaag agctgccaaa atgtcagatg ctcacggtgc 180
 tggttctttg accgctttgc ctattattga aaccaagct ggagatgtgt ctgcctatat 240
 tccaacgaat gtgattagta taaccgatgg acaaatcttt ttggagtcag aactgtttta 300

taaaggccag agacctgcca tcaatgttgg actttctgtt tccagagttg gttctgcagc 360
 tcaaccgaaa tgtatgaagc aagtc 385

<210> 4926
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-F5
 <400> 4926

aggtacacgg tcaggaattc ccgggccgac ccacgcgtca gcggcattcg acgacgcctt 60
 cgagctggag cagcgttgag taatttctga aacacaaata tgcgtgccaa gtggaaaaag 120
 aagagaacac gacggttgaa gcgcaagaga agaaagatga gacagcggtc caagtaacgg 180
 aagaatcctc ggacgtctga gttgaataga gttcctaaaa cgtgggaaaa ctctatttgc 240
 aactctggcg cagtgattat atcctgctac ggaaggttgg aagtgtttcc gaggattgtt 300

cgcaagttat gataaaaggt tcttgtgggt tttgttttca acttgtaaata gccacttgtc 360
agtcatttta ttcgagtaaa aaaaaaaga aaa 393

<210> 4927
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G1

<400> 4927

ggtcaggaat taccgggtcg agccacgcgt ccgccaagc gtccgaaaaa tggtcgtgtc 60
ttactccgta cctgcaagaa acttaccggc tttggcacgt aactttttcca atgtctgtct 120
ctcgaggagt ggtctgagag ggggatgttt acgaaatgtg aaagttttca accacaaacg 180
acctgcaagg ttgttatcta cgaaaatgag aggaggcgac catgaaagga gagaacttag 240
tcgtcctatg cgtacgcttg attccgcttt cgacgaactt ttagcttttg cgcaggatcc 300
ctgggtccatg tttcgctctc catggagtct gtcgccaga agtatggcag tagacacgtg 360
gatgcctcgt gttgacttgg tggagaagga agatggcttt tatgcatacg tggaacta 418

<210> 4928
<211> 403
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G11

<400> 4928

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aaaatgacaa aaggaacttc gagttttggt aagagaagta acaaaactca cgttttatgt 120
atacgtgtg ggcgaagggc gtaccatcta cagaagaagc gttgtgcttc ttgtgggtac 180
ccatctgcta aaaagagaaa attcaactgg tcggaaaagt cgaaaagaat gcgaacgaca 240
ggcactggtc gaatgcggta tttgagacac ctaccgcgac gattcaaaaa tggttttaga 300
gaatgtgtca aggcttcttc taaacgtcct gtcccagcac cttcagcagt ataataattg 360
acaacttttg tcaaaatata aactcgcgcc cagtccaaac aga 403

<210> 4929

<211> 390
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-G5

 <400> 4929

 attccccgggc tgaccacgc gtcagcggac gcgtgggatg ttaatgttgc agtatacgag 60
 agagaagagt gtaagggtag aggaaatgaa tataatggaa ggagaatggt aatgtatgga 120
 gtaataggag taatgataat gatgacgtta agaggggaagg gagtaatggg agtacatgta 180
 ggaatgtcat ggtagggat aagtagtgta ataataatgg gaataatggg aatgataaat 240
 gtggtaagta cgtcatataa aagcatggag tatatggaaa ggtttacgag agaaggaagt 300
 agaaagaaga gagtgtgaagg cggcgtcata atagaaatcc gaaaggagta gaacacaaga 360
 gagagaagac cgaaaagaag agaaaagccg 390

<210> 4930
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-G8

<400> 4930

 attccggggc gaccacgcg tcagaatgca ccagctcatg tggagaatgt cgttgaacct 60
 agcaaccact tttcttatcc aagtttctat ccagagaata tgccatttcc cacaggatat 120
 cctcctcctc ctatgacttc aggagtatgg ccatatccgt attttccatt tccgtatttc 180
 ggacaatcct ttgcgcctat aaataatgac tatagcacca acaataatat tccctggaaa 240
 gattcatctg tcgtcagtgc atcgaaacca aacttggtgg agaaaccgaa agtcaatgaa 300
 agttctatga agagaaagca tcatggagga gaggatgata ggacggcgcg ttcttcatct 360
 ccggaacaaa ccgctgagtt tcgtcggaga cattcttcga aacgt 405

<210> 4931
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-H5

<400> 4931

acccacgcgt cagcccacgc gtccgtgtgt gtttgtgaaa ttaaaagctt gccgtgttaa 60

aacaaacaac agaaaaaaat aaaaataata gaaaaaaatc taaaaaacga gaatgttgcc 120

acagggttttt caaaaacggc gttaggacta tatctgtaca gtgtttccat caactgcac 180

acgaagcctg ggtcttctat gacatcaagt gaacatgctt gtcttgcaaa ctgtatggat 240

cgctatttag atgcaatggg aatcgtttcc aagactttaa tagagacaac ttcacgtaat 300

tccaactagt ttgtgtatga tccgaagatt tttgacctg 339

<210> 4932

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-H7

<400> 4932

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agttgcatac atagtcgttt cgatatagtc ttatatggtc gcgatgtgtc tgaaacttca 120

gctctcctat atgtatagct agtggaaaaa cagtttagct tccttgatgg actcaggtat 180

agggtcccag attgcttcaa gtggatgcag aatggtaacg acgatggatc gatatgaagg 240

atattgggga ctctacaaa caggctggct tgctcatgtg ctatctgaca ctgcatgtat 300

caggacattt tcaagtgctt ctgatgctat tcaaattctc cgtaaggacc ataatggagt 360

tatagatgag ttccatctc catttactat cggcgacgat aagagagatc atggtaggaa 420

aat 423

<210> 4933

<211> 314

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-A11

<400> 4933

gtcaggagat tcccgggtcg acccaagcgt ccgcggacgc gtgggtggta gcagttgtac 60

attcaacatc atcaaagcc aaagggagga aagaaagatt cttcaaagaa agaagccaca 120

agtaaacctg cagcagcaga tgctacaaag acgacagaaa agtctggtcc ggaagccaag 180
 ttgaagggaa ctggtgcaaa gaaacaataa aaagttgact atgcatgttc ctgttatgtt 240
 ttgtgagttc tgtttgatag tttccagcta ttcttttggt agtgaataaa gagaaaattt 300
 tttatatatta aaaa 314

<210> 4934
 <211> 286
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-A9
 <400> 4934

gtcaggagtc cccgggtcga cccaagcgtc cgtgtacatt caacatcatc aaatgccaaa 60
 gggaggaaaag aaagattctt caaagaaaga agccacaagt aaacctgcag cagcagatgc 120
 taaaaagacg acagaaaagt ctggtccgga agccaagttg aagggaactg gtgcaaagaa 180
 acaataaaaaa gttgactatg catgtgcagt cctgttatgt tttgtgagtt ctgtttgata 240
 gtttccagct attcttttgg tagtgaataa agagaaaatt ttttat 286

<210> 4935
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-B1
 <400> 4935

ggtaccgggc atggaattcc cggctcgagc cacgcgtcag ggaagaacgg accgagtttt 60
 acaagtcgat attgctggag tattcttctc tgccgttttt tcaggagttt tgatggtaac 120
 aaagtctttt tcttgagttg tttatttacg gtagttagat tccggccttt tttgcgttca 180
 agaggtgaat tccaatagag catttgagga acggaagtac ttattttttc attgcgggag 240
 gaaggcgttg tttcgtagct attgctgttc tggccattct gtatgtaagg tggcttaaag 300
 gaaatgaaag aatgcgactt gagttgctgt tgggcaagga gaagacagca acaataacag 360
 gaacagtga tagttagaaa ggttgatgtt cgtagatatt cactactttt aaaaggattc 420
 ttttctgctt tcccaaac 438

<210> 4936
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E1-B5

 <400> 4936

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cccacgcgtc cgccccacgcg tccgcccacg cgtccgcaat acattgcgcg tgcaagaacg   60
gcaaagacat cgcaaaaagt gaatgagatg ctcggtccg tgaatacagag ttctgcaggg  120
gaagcttgatg gaaggatgaa gtccaaaggg gggggagttg gaagcgagtg cggaagcaag  180
tgcggttatg attggctctg gagatggggg ggtgggacga cagtttcagg cgggggaagg  240
aacttcggtc gatgatgaag tggcacaact aaagtcgagt atcgagtctt cttctcgacc  300
taaatcactt ctttttcagc aggatcccaa tatagaagct gagttggacc gaatgaaaag  360
agaacgagat tattcttgaa ctgttcaagg ggggcaatga atagacagta tatatatata  420
tatatat                                     427
  
```

<210> 4937
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E1-B9

 <400> 4937

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gtcaggagtt cccgggtcga cccaagcgtc cgattgaaat ggcgccatgg aacctatttc   60
ggattgatcc tttttctttc tctgtgtgtg tgtgtgtgtg tgtgtgtgga ttggcgcctt  120
gtcttgatg aaagtttcgc ggctccgttt cttgactctg gtgacgttat tctttacttg  180
ccttgttttg gtgacaagca agacagacac acaagggtta tttcacaggg cttctgaatc  240
aattccgttg catgattcca acgagtcctg cagtggctcg acagaagagt ctttcgagtt  300
tcaggccgaa gttcaacgcc tgatgaacat catcatccat tcgctgtatt ctaacaaaga  360
aatattcttt agagagttgg tttcaaacgc tgccgatgca ctggaaaaat tgcgtttt   418
  
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<210> 4938
 <211> 426
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-052-Q1-E1-C2

<400> 4938

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gactgttttag caaaaacaca gcaactctgca gaaaagagaa aatgtaaagt atagagtgtg 120
cggcctgccca aatagtagag aagaggtcga tgaaagtgaa agcgagtaaa agatgaggta 180
tagagaatgg cggtcctaac ggtgagggtc caaaggtagc gaggtaggta gacgtttgaa 240
aggcgtccag tatgaaagga gaaacgagtg tagcactgtc tagtcgtcca actcagcgaa 300
acagcaataa ctgtgaaaat gcagtaaact agcagtagga cggaaagacc ccataattct 360
tgactagata ggtttangga ggagagagaa tcatgaagta gangaggtgg ggtaagagat 420
gaaaga 426
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<210> 4939

<211> 424

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C3

<400> 4939

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ttctatattc agcatgcgta cggttgtggt cactggagcc ggaggattcc taggaaagtt 120
gctggttgag aaactctcca aggaggagtc tattgaaaca atactagcgc gtgatatgaa 180
ggagccactc gaaagcttag ggaacttgcc taaaacaaag aggggagtgagg gagatatcac 240
cgaggagttg caagttaaga aagctattga aggatatcaa gtccacgggg tcgtccacct 300
cgctgctatt atgtcaggtt tatctgaagc cgatataacc agtgcaatga aaataaatat 360
gatcggtgcg ataaatatga tgttatccgt agcgaacgag gcaacaaatc caagatttgt 420
tttc 424
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<210> 4940

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C5

<400> 4940

gaattcccggtgtggacccacgcgtccgcccacgcgtccgccacgcgt 60
ccgaatcagg tccgtcgcta ttcctgctgt tgtttctacc ggagcagggc tatctgttgg 120
tgtagctgcg gcagttgcaa aggcttggtc tgacctggat cagggagggga gtggcagggga 180
tagagcgctc ttgagtttgc cccaagtttt caaaagtggg gggggggagg gcaatcttcg 240
cgggcgctcaa ggacaagggt ctattgaagc ccgaggtaaa gctgagagaa ttgcaagaca 300
aagagcagga ggtatccgta gtgtcgaaga tgacgtcgta ccagaggaac ccaactttct 360
agcaaagggt cccaaacggg agcgagatgg gagagcagct tttcgtccct cagagaagtc 420
agacccgttc tccctcggag cca 443

<210> 4941

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C7

<400> 4941

gaattcgcggtgcgacccacgcgtacgcatcatgaaagctgctgtctttgcattctttgt 60
cttagcacta tgcgccgttg ctattcaagc ttctcctcta gaggacactt tgggtgcctt 120
tatgcgggggtggttatcaatcgcaaagccaagcacaaaa cctagctgttgcaagttgag 180
ctgtcattat acccaaattt gtgaacaagt tatcgtggag gactgggcag gtcgtccaag 240
ctgcgagaag tttaacaaac acaacaagta cagcaaacac aacaagtttc gtcagcatat 300
ggacgcaatg aggtatccag agggggatat ggccaacagt ctgtagcccc agctcctgca 360
ccttcctgtg cagtgttcca gtcaagtgcgtgattgagtgctcgtcttgc taccaacaag 420
tttctcagca agctcctcaa c 441

<210> 4942

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D1

<400> 4942

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ctatcttctg ggcgcttcga gttagttggt atttgatggt tttcagaggg acgagaattg 180
gaagtttgat caaccgcttt tatcagttga cgcacgagg agaggcaggc ttgggtctca 240
tggtgctgca tgcagttact cagagtttgc aaggttttct atttggactt atttatattt 300
accacgaaag agcactaggg gaagttgttc tattcattcg tcgcaagtgg agtcgcagag 360
gggattttcg cgaggattct tttatcgcat tagagaaaag aggacttgct cttttttcac 420
aatttgatga 430

<210> 4943

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D2

<400> 4943

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ggtagacata tccacctcaa agacagggaa gcatggccac gcaaaagcca acatagtagg 120
tagtgatata ttcactggca agaaatagga ggaaatgtgt cccacctcgg agaagagtct 180
gcagccggtg gttaaccgca aagactatca gttggtagat attgaggacg agagggtgtg 240
acttcttagc ggaggaaaac aacgagacga gatcagacct gaaacttgat ttggagaatg 300
atgaagtaca caagaagatc aagcaagact ttgacgaggg gaaggaactt ttggtgaccg 360
tactttcggc aatgaagata gagaagataa ttgcttcaa ggagcttaat tcgtaagcta 420
gttgctgact 430

<210> 4944

<211> 514

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D3

<400> 4944

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gggggggggc gggggggggg gtggaacttc ggggccggga ggggttacgg ctcgagccag 120
gcgtccggcc acgcgtccgg acgtctttgc gtgttctgta gagaaatggg tattgttccc 180
aagacgagac gtacattttg tcctggaaag tgtagaaagc gcactttaca caagggggcg 240
gagtagggga aaggaaaaga ctccctgggt gcggaaggaa agagaagata cgaccgaaag 300
caaaaagggt atggcgggtca gaggggggcg ggggttcgag aaaaggggag gacaaccaa 360
aaaatagtat tactgcgcga gtgtgtggac tgtcactaca agacgcagca tacactgaag 420
cgttgtaaac acttcgagtt gggcgatcaa aagaaagttc gaggtggagt tactttttaa 480
ataaaactat gttcgaaaga tacaacata agtg 514

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<210>      4945
<211>      226
<212>      DNA
<213>      Cyanidium caldarium

<223>      unsure at all n locations
<223>      Clone ID: LIB190-052-Q1-E1-E1

<400>      4945

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aacgggtgag taaagagggtg tgaaagagtg gaagaacatg aaagcacaga agaatgtaag 120
aaatggttgc agtaaaaacc atcaggggag tgagagggga atctgagagg aggggggggg 180
ggggggnaac tgagaaaagg tccaaacaag agaagtgagc agtgcg 226

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<210>      4946
<211>      353
<212>      DNA
<213>      Cyanidium caldarium

<223>      unsure at all n locations
<223>      Clone ID: LIB190-052-Q1-E1-F1

<400>      4946

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taccggttag gaattcccgg ctgaccac gcgtacgcga gaaggagagg gcgtaagacg 60
tgatacagag taggaagaaa agagaagaga gctagaaagg aggtaaaaga agagtaaaag 120
gactagaaga cgtacggaat tcacgaggag ggagcgtggg ggaaggagga atcccacggg 180

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ggcgggggga gaaaaagctt cggtgaaagc gtgaacggat tttgtacaca ctgtggggga 240
gcggggggaa ntgtgtggcg gggtaagcan gacaagtaga agagagtagg agaagaggaa 300
aggaagtgaa gacgtaagac gtgaaacaaa ttgcaaaagg gcgggcgctc cag 353

<210> 4947
<211> 424
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E1-F3
<400> 4947

aattaccggg tcgaccagc cgtccgcca cgcgtccgag gaaccctgt agtctatgca 60
gtaaaagaaa gaatgagtaa gaaaaaagg agtcattcca ccaggggagt aaaggcgcaa 120
gaaagaaacc caaagcaatt gacgggaagc ggaaaaagg gtggatgacg tgggttaatc 180
cgataaaccg agaaccttac ctctccaaga aggtgttgca ggggggtcgg aggaacgtgc 240
tgtgaagtgg gagaacgtac gagaaagcca agtgacgaaa agaaggcaag tagagggcgg 300
cccgagaaag gagagggcgt aagacgtgat acagagtagg aagaaaagag aagagaggggt 360
acgcttagaa gcagcaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga 420
aaaa 424

<210> 4948
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E1-F7
<400> 4948

atthtgtgga ttgatagttt ttatactatc gacgcattgt ttgaatatct gccctatcaa 60
cttttgacgg taggatcgag gcctacggtg gtgttgacgg ctaacgggga attgggggta 120
caagaatgga atgaggtggg gaagatatct tccttagata cttggaagct tgtgcttggt 180
acaagagcgg ggggtgcggg ggatgttaca gggaggtgca caagctgacg agcatcttgt 240
cctttttata ctggggcgaa caaccgagag tggactatat cgttgctgag gatgaagcaa 300
gttgggaaaa gttgtggaga ggaaaacgcg aggtcattgg atatactttg gaagcagctt 360

tacagaaaac ttgtattgtg gaaaaccagt tgagggagtg gacaaagaaa 410

<210> 4949
<211> 402
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G1

<400> 4949

taccggtcta ggaattaccg gctcgaccca ggcgtccggg tttacgagag aaggaagtag 60
aaagaagaga gtgtaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120
gagaagaaag agaagaagag aaaagccgta ctgaagagcg gcacaggtac tcgaggacaa 180
gggagaccca aattaagggtg agagaatgga cgataaggaa ctaggcaaaa ggatgaggga 240
gcggcggttag aacataggag agaagcagca ccgactgttt agcaaaagca cagcactctg 300
cagaaaagag aaaatgtaaa gtatagagtg tgcggcctgc caaatagtag agaagaaatc 360
catgaaagtg aaagcgagta aaagatgagg tatacagaat gg 402

<210> 4950
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G11

<400> 4950

gaattcccgg gctgaccac gcgtcaggct gcaacttgca actcgtctcc ttttcgttct 60
tctttcaccg caccgctatg caaaaaatgt gcttgctgct ctacccttc gttgcctaga 120
gtggacgatg ataccttttc gcgccaagtc gtgtccatga aaggcagaag ggacctcaaa 180
aaggaaaaga aactacgcaa tttggagttt gctaggctgc atcggaagaa aaaagaacgc 240
aagagaaagg tgaatcaaga gacgttgctg gtgatggacg ataataactt tgtaaggga 300
gtgttttctg catcggaaga atcatcgagt agtagcagcc agttggagac tggatagcat 360
atggatgaat aagatagtga ggttttagcaa tgcacaaaaa 400

<210> 4951
<211> 284

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-G5
 <400> 4951
 gacatagaat ggcaacagat aaagtcagct aagaagatat actcttgtgt aaaagaatca 60
 tgggggctggg gagtagttgg agctagacga ttcggtggca ggaggcagtg gattcatctt 120
 gtagcaccaa gtggctgttt attgcaacgc ggggggtgcg gagttgcttg tagggagggg 180
 cagcgaattg aaatgattcc tttgaggaaa gatataaagg aattgttttt ctctacttta 240
 aagaagaact ttgagtcgaa cgaagcgtca tgggagtgca gtgt 284

<210> 4952
 <211> 291
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A11
 <400> 4952
 agcggacgcg tgggtggtag cagttgtaca ttcaacatca tcaaagcca aaggaggaa 60
 agaaagattc ttcaaagaaa gaagccacaa gtaaacttgc agcagcagat gctacaaaga 120
 cgacagaaaa gtctgggtccg gaagccaagt tgaagggaac tgggtgcacag aaacaagaaa 180
 gagttgacta tgcattgtgcc tggttatgtta tgtgagttct gtttgatagt ttccagctat 240
 tcttttggta gtgaataaag agaaaatttg ttatatattaa aaaagatgaa t 291

<210> 4953
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A5
 <400> 4953
 agcccacgcg tccggagatt ttgcgcgcca tttctctcaa tgggaagcttg gcgagggtgt 60
 atgaagagaa aaatttgtag tcttgcgagg caacattcct ccaacaaacg tagaataaca 120
 gacaacatgt gggacagagc acaggatata ctgcctgatg ataaaccaat attttatgga 180
 aaaaaaaaaa aaataaaaaa aaaaaaaga aaaaaaaaaa aaaaataaaa aaaaaagaaa 240

aaaaa caaaa aaaaaaaaaa aataagaaag ggtaacaaca cagtaagagt tcacactaaa 300
 agtagtattc aagggggaat caaaggaaca tcatcgccgt aacataaatc aaaaacaaaa 360
 gggggggggg 369

<210> 4954
 <211> 278
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A6
 <400> 4954

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 cgcgccattt ctctcaatgg aagcttggcg aggtggtatg aagagaaaaa tttgtagtct 120
 tgcgaggcaa cattcctcca acaaacgtag aataacagac aacatgtggg acagagcaca 180
 ggatatactg cctgatgata aaccaatatt ttatggaaaa aaaaacaaaa aaaaaaaaaa 240
 aaaaaagcaa aaaaataaaa aataaaaaat ccagaaaa 278

<210> 4955
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A9
 <400> 4955

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 ccacaagtaa acctgcagca gcagatgcta caaagacgac agaaaagtct ggtccggaag 120
 ccaagttgaa gggaactggg gcaaagaaac aataaaaagt tgactatgca tgtgcagtcc 180
 tgttatgttt tgtgagttct gtttgatagt ttccagctat tcttttggta gtgaataaag 240
 agaaaatttt ttataaaaaa aaagattgag gaa 273

<210> 4956
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-B12

<400> 4956

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gccagggcag cacagatata aagttggaag cccgaaacag ttattgtcgc cgcgttcttt 120
gtttttacta caaacattag aatggaattg gggcaagaaa actctagagt tcctaccct 180
ccccacaac tgcacctaata ttttgagcga cccggagctc tcaatactgg tggtagagca 240
gcatggctg cactggcttc tgtttgtct ggaaaaaac ttgtgataca acccaactgg 300
atggacaacg aggggtgtaa caaatattgt atggataaac gggattatat gggatgctgt 360
agtttggtaa caatacctga agagtggccg ttgttgaggt ggaacgcgga aaatattccc 420
cga 423

<210> 4957

<211> 390

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-B9

<400> 4957

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tgtgtgtgtg tgtgtgtgga ttggcgcctt gtcttggatg aaagtttcgc ggctccgttt 120
cttgactctg gtgacgttat tctttacttg cttgttttg gtgacaagca agacagacac 180
acaagggtta tttcacaggg cttctgaatc aattccgttg catgattcca acgagtcogt 240
cagtggctcg acagaagagt ctttcgagtt tcaggccgaa gttcaacgcc tgatgaacat 300
catcatccat tcgctgtatt ctaacaaaga aatattcggt agagagttgg tttcaaacgc 360
tgccgatgca ctggaaaaat tgcgttttct 390

<210> 4958

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D2

<400> 4958

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acatatccac ctcaaagaça gggaagcatg gccacgcaaa agccaacata gtaggtattg 120
 atatcttcac tggcaagaaa tacgaagaaa tgtgtcccac ctgcacaaac attctgcagc 180
 cgggtggttaa ccgcaaagac tatcagttgg tagatattga ggacgatggg tttgtagttc 240
 ttatggatga aaacaacgag acgagatcag acctgaaact tgatttggag aatgatgaag 300
 tacacaagaa gatcaagcaa gactttgacg acgggaatga acttttgggtg accgtacttt 360
 cggcaatgaa gatagagaag ataattgctt ccaaggagct taattcttaa gctagttgct 420
 gac 423

<210> 4959
 <211> 425
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-D3
 <400> 4959

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 tagtacgtat tgatatcttc actggcaaga aatacgatga aatgtgtccc acctcccaca 180
 acattctgca gccggtgggtt aaccgcaaag actatcagtt ggtacatatt gaggacgatg 240
 ggtttgtagt tcttatggat gaaaacaacc agacgagatc agacctgaaa cttgatttgg 300
 agaatgatga agtacacaag acgatcaagc aagactttga cgacgggaag gaacttttgg 360
 tgaccgtact ttcagcaatg aacatagaga agataagtgc ttccaaggag ctttaattcct 420
 aggct 425

<210> 4960
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-D6
 <400> 4960

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 tatgcaggaa agaagaaggt aaaggaagag aaggaagaag cagagagggga ctatgagcga 120

gaaggtggat agtcgagagg gaaaaagccc agaagccaag ataaggtatc aaagtaaaga 180
aagaaggaaa aggagaagaa gagagggtag gcttagaagc agcaaaccag agaggaaagc 240
gttaaagcat gaaagaaaag aaatccgaaa aagaagagaa aaaggtaaga aagaggaccg 300
aatcagggtta agaggtagag gagcaagaag agaagagaga atgctgggtg gagtagcgaa 360
acaagagaag ggaagtaaaa ggtaagaaag acgaaacgtt tacgagagaa ggaagtagaa 420
agaagagagt gtaaggcggc gtcataatag aaa 453

<210> 4961
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-D9
<400> 4961

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gttgcaaagt ttggaggaaa accacaaagc gttttactca ttgaaaagtt tgtcagttta 120
atggaaaacg aaaaggaaga acgggagaaa tgggcatgg aagcatggaa aacgcagtta 180
attgtcgatg ctattttatca atcgcgagaa accaagcaag tagttgtcat gaaatattag 240
ttttctttgt agtattttcta aagattttcca tgtttgtatc gtatatgatt actgagatgt 300
acacgacgag gaagtcagtg tttgttgaag aaagctttgg ctatacaact gggaacgatg 360
acttgtgcaa taaatgtcac acaaattgtga cgtttttgta cgagcaagtg c 411

<210> 4962
<211> 393
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-E10
<400> 4962

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agaagccttg gatcgttttc gttcgagcag gagtttatgt ggtgcggaga caaggacgag 120
tgtatgttat ccagagtctg aagaagattc atcgggagaa gtgcaataga ggagaaagcg 180
gcggcggagg aaacgggagg atattaccag tccgaagagg caagatagtg actcacggga 240

gagtgatgat tccagtcgcc tggaacgaga gcaatgtaac gaagaagaga attagttcaa 300
 tcacagactt gattctcttt acttgaagtc taatcggcag aataatgtga caacagatcc 360
 tgcatagttt gtatcccttg gtaaagatat gac 393

<210> 4963
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-E12
 <400> 4963

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 tatactctcaa ggctctcatt acttggaag gatggcagat gttggttttg atattatttc 120
 tgtggattgg acggtggata ttggcaaggc gagagaacgc atgggttctt cttctggtat 180
 tcaaggcaat ttagatcccg ctattttgtt agggacacct caactcattg aagagcgcac 240
 gcgtgagatt attcataaag ctggacctcg tggatcatatt atgaatttgg gacacggcgt 300
 attaccaac acaccagaag aaaatgtagc caaattcttt caaacgggtgc aacaatttcg 360
 ttggcaagaa taaatttact ctattagctg cgg 393

<210> 4964
 <211> 466
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-E3
 <400> 4964

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 tgacttggtt aagattgttg cttacgaggc aactggcagg gaaatgtgga aatataacac 120
 tagttggtag tcttccatcc attcgatcgg tctctagtgt tcttccttca tgtaactatt 180
 ccttcgcaag taacattcaa aggagatcct tctcggctgt tccttcggag gaaaaggcaa 240
 ataaacaaaa ggaagaagct aatgttacac aagatacttc caaaagtact tctccaactg 300
 ttttcagga tacttatggc tttgaattaa gaacaggccg agcggacagg atgccttctt 360
 cgtttgagca agccacggga agtgaacgag cagaattgga agatcccgat atctatcgta 420

atcctgaaaa gtttgtcaac agcagagtta tgattgcacc ctttgg

466

<210> 4965

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E6

<400> 4965

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cagttctatt tatctaagga gagttgcatg gaagagtatc aattatcatg gttaccctcg 120
agttggcgta cctaataata gggtaatctt tccaggaatt atctcaagtg ctgccgatag 180
tagcagtga aaggaaggtg tcaagaatat cgttgataat atcaaggaaa aaggttctga 240
aatatatcac tcagttgaag aaaatgtaaa gaaggagca gaaaaagtat cagaaaacgt 300
tgatgaattc aaagacgctg tgcaggatag aatggaaaat gcagatactt ccagagcaga 360
agacgtagca cgagatgttg tagataacgt caaagatgct ggacaatccg gtaaagaagg 420
tgtctctgat g 431

<210> 4966

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E9

<400> 4966

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agaagccttg gatcgttttc gttcgagcag gagtttatgt ggtgcggaga caaggacgag 120
tgtatgttat ccagagtctg aagaagattc atcgtcaaaa gtgcaagaga ggagaaagcg 180
gcggcggagg aaaggggagg atattagcag tccgaagagg caagagagtg agtcacggcg 240
gagtgaggag tccgaaagag aggaacgaga gcaatgtaac gaagaagaaa attatttcta 300
tcacaaactt gattctcttt atttgaagtc taatcggcag aataatgtga caacaaatcc 360
tgcagagttt gtttcccttg tcaaagatat gacagagcct cttatgaag 409

<210> 4967
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-F5

 <400> 4967

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 cttcaagtga ggaagataca gtcgtggtca tacactttgg tccagacgtt catccgacat 120
 gtatgttgat gcgacacaca tcttactgcg cagctcaagt gataaccttt tttgctgtcc 180
 tctatttcggt cgatataccg gaagtatctg actttaactc tatgtattaa gtgtatgatt 240
 cttgtaccgt tatgttcgtc attcggaaac cccatattat ggtagacatg gctaccggta 300
 ttaagagggt gatcaactgg gctaccgctg actttcagga tcttattg 348

<210> 4968
 <211> 416
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-G1

<400> 4968

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 aaagaagaga gtgtaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120
 gagaagaaag aaaagaagag aaaagccgta ctgaagaccg acacaggtac tcgaggagaa 180
 aggagaccca aattaagggtg agagaatgga cgataaggaa ctaggcaaaa ggatatggta 240
 tctgcggtag aacatatgaa agaagcagca ccgactgttt agcaaaaaca cagcactctg 300
 cagaaaagag aaaatgtaaa gtatagagtg tgcggcctgc caaatagtag agaagaaatc 360
 gatgaaagtg aaagcgagta aaagatgagg tatagagaat ggcggtccta acagta 416

<210> 4969
 <211> 344
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-G10

 <400> 4969

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 catttggtgg cctcttattt gtccttggtt ctccaaagat ttttttttcg ccctagaaaa 120
 ctttaacgga tcatgttgga ggctccagtt gaagaaaaga tactttgtgg tagacagcga 180
 tattgcctca gattgtagaa agtattgcac tggtttatac agagataacc acgtcttagt 240
 gacactgaat ttataccgtc cgctgtctga gagtcgtttg ttcttagtat tgcatttttc 300
 ttttgttttc ttgaaataaa aatttggcgc caatttgtag tggc 344

<210> 4970
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-G11
 <400> 4970

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 aatatgtggg gggttctaata ttgtcggtgc ctcgagtgga agattatttt cgctcgagac 120
 aagttgtgtc gatgatgtgg agaagggcaa gttgaagaga agatactttg tggtagatgg 180
 agttagtgc gcagcatgtg aaaagtattg cactgggtaa aacagtgatt cacaagtcgt 240
 agcgggtgtg agattgatac cgcccgctgt cggagattct ttcgttecta gtattgcaat 300
 ttacttttgt catcgagtaa gagac 325

<210> 4971
 <211> 367
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-G2
 <400> 4971

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 cagagactan cacatgcaag taggtaaagc gaacgggtga gtaaagaagt gtgaaccagt 120
 ggaagaacat gaacgcagac acgaatgtag aaatgggttag agtaaagtcc atagaagaag 180
 taaaagcggg aatctgagag gatgaaagcc acatcggtac tgataaaagg tccagcacca 240

cagaactgag cagtggggac aattgacgca tctacagga aataatgtcc agtatagagg 300
attggactac cagataatga agtagaaaga gggaatgatg ggaactaatg gcacatgaca 360
gtatcca 367

<210> 4972
<211> 463
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-052-Q1-E2-G3
<400> 4972

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taaagaaccc ttcgagagtg gactttgtcc atgtcgatgt tatggaaaaa tctgtacttt 120
ctagcgtatt aaaggatgct gaagtgggtt tcttctgtgc ttcagcttct gcagggtgga 180
gagtccttgg tacttctaag aacaccccca aacagggtgga ctacttgggc gccattcatg 240
tcgcagaagc ggagcccaa gctaagggtta aacgtctcat cttggttaagc tcagcaatgg 300
tgactaaccg aagttcattc ccttatttgt tcttgaactc tgcatttga cgaattatgc 360
~~attggaaaag gcaaggagaa attggagtca tcaaagttca tgagaaaaat ccagaaatgg 420~~
cttatactat tggtcgccca ggacacctga tanatgagcc tgc 463

<210> 4973
<211> 338
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-G5
<400> 4973

gacatagaat ggcaacagat caagtcagct aagaagatat actcttatgt aaaagaatca 60
caaaccaaag aatatttga gctagacgat tcgttcagc agccagtga ttcacgtgt 120
agcaccaagt ggctgtttat tgcaaccca ctgttgaag ttgcttgatc tgatgggcag 180
cgaagtgata tgattccttt gaagaaagat agagaggaat tgtttttctc tactttatag 240
aagaactttg agtcgaacga agcgtcatgg gagtgaatg tacttgacat cgcagttgct 300
gtttttatcc agtattatga agagtgcgtg gaacagta 338

<210> 4974
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H10
 <400> 4974

gaccacgcg tacgtgattc ttcttcttct ggttcttctg gttctgagag tgacgatagc 60
 tttgattcgt catcagatga ggatagctcg gatgatgagt actatagtta tgatgaagat 120
 atttctgatt atgattcggg agaagaagtt gatgacttgt tttcagaaga agacacggat 180
 tcagaagaag aaggttccag tgactcggat gacgtgtaaa agagtgtaca gtgcagcaat 240
 ggaacaaaag ttgtttcgca acagtgtata gacagaaata gatagatgta gaaaggaaaa 300
 cagcgaacta ttattatcta ttcttttcac caaggaacaa ccgtttgctc gtccttgtgg 360
 gcgtatatat gtccatagat tatctaa 387

<210> 4975
 <211> 463
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-H3
 <400> 4975

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 tttgtacttg attcttgtaa aacatgtctg acgatattgt tgccttggtt attgacaatg 120
 gctctggtat ggtgaaagca ggagttgcag gggacgatgc tcctcgttcc gtcttcctt 180
 ccatcgtagg tcgaccaaga caccaagcta ttatggttgg tatgggacaa aaggaaagtt 240
 atgtgggtga tgaggctcag tctcgaaggg gtatactctc tttaaaatac ccaatagaac 300
 acggtattgt cactaattgg gatgatatgg aaaagatatg gcaccatact ttctacaatg 360
 aacttcgaat tgcacctgaa gagcatccag tcttgttgac cgaagctcct ctcaatccan 420
 aggcaaacag ggagaanatg actcagatca tgttttgaga ctt 463

<210> 4976

<211> 300
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-H5

 <400> 4976

 aatccggggcc gacccacgcg tcagaagaaa ctaaaggcgc gcaatgtcgt ttttgtggga 60
 aaaaaaata aagacacaaa aggaagagat taataaaaag aatcacacaa aacaaggatt 120
 taaattgctg tcgtggcaag cggcattgtg tcattcatgt ctgtgcaaca gatgtacaag 180
 ttgttgtata ctgtctccag gactaaatct gttaaccggt cttcaagtca ttttataacg 240
 gtgatatctt ggaacttccc tgccattact ctgcttcttc accttgaccc ctttgtccaa 300

<210> 4977
 <211> 220
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-H7

 <400> 4977

 agagtgactg tcttcctatt ccattttcca tacaatactc taattgtccg taaggtttca 60
 atattattac aagtaaacad gagttgttca aagtaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa gaagaaaaaa aaaaaggagc aaaaaaaaaa taaagataaa agaaaagtaa 180
 aaagttcatg aaaagagtaa aaaaaataa aaataacggg 220

<210> 4978
 <211> 419
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-H8

 <400> 4978

 gacccacgcg tcagcccacg cgtccgccc cgcgtccggc agaatggacg acaggcttcc 60
 acgtttcaaa agaactttcc acagagtgtt ttataagaaa agaaaggaag acacagtaaa 120
 tgaggcgaga aagcatagga agtgaaacga tangaaccgt gtagtctatg cagtaaaaga 180
 aagaatgagt aagaaaaaag ggagtcattc caccagggga gttaaaggcgc aagaaagaaa 240

cccaaagcaa ttgacgggaa tcggaaaaag gtaagaaaga ggaccgaatc agggtaagag 300
 gtagaggagc aagaagagaa gagagaatgc tgggtggagt agcgaaacaa gagaagggaa 360
 gtaaaaggta agaaagacga aaggtttacg agagaaggaa gtagaaagaa gagagtgtt 419

<210> 4979
 <211> 246
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H9
 <400> 4979

ggagtgagtg tgcagaggac tcgagccaat cgattggaat cctattggca atgactttgt 60
 cgtggagttg agttctggta cgggtgttga tcaagtttct ttggaagaca gagaatatta 120
 tgattatgat gaaaaggaaa aggaacaagt cgctattacc ggtttagaat ggcaatggaa 180
 gagagtataa atttccaaac aacaacaata atagaaaata tagtcataga aattgttttc 240
 cacaat 246

<210> 4980
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A12
 <400> 4980

gcgtcagagg aaagagaatc atgaggtaga ggagtacggg tgatagtggg agtgcggagt 60
 ataataatat ggagtatatg aggatatgga gaggagagta taatgagatg gataagggtac 120
 agtacgataa gtcagatggg atatatgtta atgggaatga ctatgggtaa taaagaggag 180
 agtgtacaat attacataac tgtatacagt gtactgatga tggatgatatt aggatgggtgg 240
 agtgagaaga gggagaggag gatgaatgag ttactaggag aaggaaagag gaatagtgtg 300
 cagactataa tgtaaatgat cacgatgtat tcgatgatgg gaatgccagt tatggcacga 360
 ttttgagta agtatacggg aatgatggag agtgt 395

<210> 4981
 <211> 394

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A2
 <400> 4981
 tgacgggtcag gaattaacgg gtcgacgcac gcgtccgcaa tatcgacaat ggatggaaca 60
 acggcatcaa cagtggatgc aaaatgaaga agaagaatcg acagaaaatc atcatggcaa 120
 gccttggaag cgtcgaaaga cggcatatag tagtaatagt agtagtagta gcaatagtag 180
 cactagtcaa aaaggtccta gtacgagtgt tttggtagat gttgttgcac ccgatggcca 240
 agcaaagaag agaggggatc gttggcttga tgaagaggag acttgggagg agaataactca 300
 taataataat gaggatgatg aggatgatgg gaaagagtcg caacaacaac aagaagaaaa 360
 gcgtttacgc aagatggctt cttatttggc attg 394

<210> 4982
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A6
 <400> 4982

aggtaacggt caggaattcc cgggccgacc cacgcgtcag gaggaagtat tcaacaaggc 60
 agcggaagaa gtaaaaaaac tgtcttcggc atccaacgaa gacaaactgg agctatatgg 120
 ttacttttaa caagccaagg aggggtgattg ctccaccgaa aaaccaaag gtcttttttaa 180
 tcaaaaagaa aaagcaaagt gggacgcctg gaattccaaa aaaggtatct ccaagaaga 240
 agcacagaaa aagtatatcg aaaaggctga tcaactatgc ggcacgcagt ttcttcaaag 300
 cgtttcttag tcaccttagg tccttgctct ttttttggtt tgcggtcct aattcccaaa 360
 aaatatgagt aaagtacccg tttttttccg caaaaaaag aaaagaaaac g 411

<210> 4983
 <211> 355
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A8
 <400> 4983

aattccccggt ccgacccacg cgtcagccca cgcgtccggt ttgattgggc tgtggaagca 60
gttgtaaact ttttcatgat gtgggtggtg tttgctggtg ctttgagtgt gatgatatcg 120
aagcctagtg cccagtttca gcggagatat gggttttggtt .tggaacttag tactattgca 180
gcctttaact ggttgaactt tggttttcat tttaccgaac tctatctgtc tattttgacg 240
acgtatgtgg cgatgcgcat gctaattccat attgcataag atcattacgc tgactactaa 300
ggtccttacg ctcattctgc attgtcgtc ctgagtccca aaaactctgt ttgtg 355

<210> 4984
<211> 133
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E1-B1
<400> 4984

agtgcggtca ggaattacgg gtcgagcccg cgtccgcca aacgtccgga ctgtggacgg 60
ctccacatta ctactgttcc tatgattggt attattattg cgcaattgac aatactagac 120
actttccata gaa 133

<210> 4985
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E1-B2
<400> 4985

ggtctagaat taccgggccg acgcacgcgt cagacgcaat agatcagaca gtaacacatg 60
caagtaagta aagcgaacgg gtgagtagag atgtgtgaaa gagtgaggga atatgatgag 120
cacaaaagaa tgtaagaaat ggtagagta aaaacgcata aaggaagtaa aagcaggaat 180
ctgataggag gaaagccaca ttggcactga caaatgtcc aaacatgaaa agtcatgcaa 240
tggggaaaat tgggcaatgt acagggatat atgactcagt aatgaagagt ggagttcaca 300
gactatgaag tcgaaggaag gaatgaacgg aagttatggc aaaaaca 347

<210> 4986
<211> 418

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-B3
 <400> 4986

acgcgtcagc aacataggca tttcatctat tcaatggggtt gaagctgggtg aactatatga 60
 aacggaagtg agaagcatat gtgcggcatg gtcggcattt tggatatttg ctagtgcttt 120
 tgtcaataca tatacattta gcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180
 actatataca gggtttactg tgttcttcat gatagtcttg ttcttcatct ttccagagac 240
 aaaaggcaag acattggaag aagtgaaaga aattatggaa ggagggttac cattcattat 300
 tcataagaat atcgtagatg catggaataa cgtcaagtat ttgttctctt ttggtaaaca 360
 ccaatcccag atcaatagaa acctttggaa gagtctacag attcgtaact cagtctac 418

<210> 4987
 <211> 274
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-B4

<400> 4987

gtcagcaaag actttgtatt ccttggttact tggtgcccggtg tgcaagataa gctcgttgaa 60
 aagtacgggc taccgagtat agaaccgtac tcggaatagc cggctccaac aacggaacat 120
 acaaataaaa tagtttattg gcgtggtttg gagtttggtc aaaaagaaaa aaaaaaaaaa 180
 aaaaaaaaaa taaaaaaaaa aacacaaaaa aaaaaaaaaa caacaaaaaa aaaaaaaaaa 240
 aaaagaaaaa aaacaaaagg ggcggtctccc acaa 274

<210> 4988
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-C10

<400> 4988

accacgcgt ccaccacgc gtccgcccac gcgtccgccc acgcgtccgg atgctcattc 60
 caagagatcg tccagtagca accagacttc gagccaagag agcaccgagg aagatgggtg 120

agaagatggt attcatagca atactgtgga gaccgacgtg ttacctccag gtgggttagg 180
 caatgcta atccatgagt tggctgaaaa tgctgcaaag agtctcgtca taagtatgac 240
 ggaaagcgcc aaacagtccc aagatggagg cggtgaagcg gatgaaaact tggaatggtg 300
 tgcggacaca tcaaaagaag caattaaggc aaggcaagca gaagctgcag cagctgcaaa 360
 ggttttggaa ggtttgacgg attctaagaa gaagaagaac gtcaatgttc ctgtggag 418

<210> 4989
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-C9
 <400> 4989

cacgcgtcag taccgagact gtgaatgatt tatgtccgta tccgcttatt gaaaacaagg 60
 aaaaacgtcc agtttctttt tgttctatct atgggtccaag cggcgactgt ttggatcata 120
 tttggtctgg agtggtgcca gttttgaata ttcacgacta tattttcttt ccaaagattg 180
 gaagctttct atccttgggt ttacgcgaat ttaatgactt ttcacgcaaa gtagatactc 240
 gttatatcgt tactttgtga ataaaaaaca acgagttggt ttattcacca aaaacaacgg 300
 cgaacatccg aaaactc 317

<210> 4990
 <211> 399
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-D10
 <400> 4990

gggcgaacac tacaagtagg gatggaaacg cctaactgta gttcacgatt gatattgctg 60
 ttttgtttgg tctttataac gactataact ttggtaaatg caaaacgaaa ctattataaa 120
 gtgctgggcg tggaaaagaa cgcttccgag agtatgtggt ttagcggttca ttctccaagt 180
 ttctttgact tttgttagga gaaattaagc gcgcgtacca tcaactagca aggaagtatc 240
 acccgacaa gaacggcggg gacaaaaagg cggaactgaa atttcgagaa atagctgaag 300
 gtaagtgctg gtaacttggt ggcttcttgc ttcttttctc gcatttggtt agcatatgaa 360

gtcctatcag acccacagaa gagagacacg tacgacttg

399

<210> 4991

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-D2

<400> 4991

ccggtcagga attaccgggt cgagcacgcg tcagcccaaa cgtccgcca cgcgccgag 60

atggctgttt ggcttggga agctgcctgt acgatcgat ttaccactta gggaatatag 120

ttctcattgt tgttcagaga cggaagaat atttcggagc ttcaagatta gtttgggta 180

tacataaaaa gttccgagag accattggca acgaaggaaa attgagaaga gattggaatg 240

ggcgcgaaac gataagattc ttgccaaacta gagtcgatgc aaccattagg aaagattgtg 300

ctagaataat accagcgaac aaaggagtaa ataatgtttg atgagagaaa agactcaaga 360

agtctatcat cgcgatatca tagagctgat aagtcaatca ctgtgtctta aagaaaaacc 420

aaatctcttg tatttatgga aatttct 447

<210> 4992

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-E1

<400> 4992

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caatgatcca tcgttgtttt gcttggaaga gagtagagga agtcattcaa gcgttaaaga 120

aagagaccga agcaactgca gattctacaa gcaagtttgc acaacaagcc ttggaacaaa 180

tattgaaagg ttctccaacg agtctcaaag taactttgga gtccatcgaa caagcttcac 240

agatgacatt gaaacaaacc ttacaaaaag atttccgtat gtcgatgcac tttatgaaag 300

gtcacgactt ttatgaaggc attcgagcaa ctttggtaga taaggataga aaccctaaat 360

ggcaaccgga caagttggaa caagttacta gagcaccggt agaagaatac tttaaaccct 420

tgaaagatat acccgac 437

<210> 4993
 <211> 295
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-F10

<400> 4993
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 ttactttttg tcgtgacaag ttataatata aaatggccaa agtaaaccct gtgtcgtcgg 120
 ctctaaact aagtgttaact agagagatag ctatcggtat tgggcttggg atagcgtgtg 180
 ctatggtatt tcgccagtgg caactccgat acaccgaaat gataataaaa taataacccc 240
 aattggatga accagaacaa aattccccct cgtccttaaa accgccctgt gtttg 295

<210> 4994
 <211> 292
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-F2

<400> 4994
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 ttgtaaactc tcgaaaggct ggataggaca agcatcatta ttcaaggtaa ctcatgtata 120
 cgtggaaata atgcttctgt cgaagtttct tataccggaa attttaaaga aagacagtgc 180
 tttttgccag cgtcctttgc tagaagaagt ggctggctcc ctttgaggct aactcaacaa 240
 agcgactttg gcctgccagg aattattgaa tatttcacg agcttattct gt 292

<210> 4995
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-F5

<400> 4995
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 cagtcttgac ctttatattt ttggagcagt ttaaggcctg gtatttgca aagctcaact 120

aggcctttgt tattggcaag ctgaataaca ctaatacttg tcgtatccat ggagttgtaa 180
aaggtccaac gggtcgttta cgctcgttca gaatggattc tcacaagtat tgcgattttt 240
aattgttggt tcgagaaaaa attgtcagaa atttcagaga aacggattgg aataaatggc 300
aatttttgct atgaaaaagc tcaggtccta tetaacact 339

<210> 4996
<211> 416
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-053-Q1-E1-F9
<400> 4996

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tgtacgaggt ttgaagccag cactagaaat tttattgggt actagaaaga aagaaccggt 120
ccagggtcgc ttggcttttc ctggagggtt tgttgaatat ggtgaggatc ctgagcangc 180
agttttgaga gaacttgaag aggagtgtgg aatacagagg acgagtcctt cgctcgttgc 240
cgtccgtggg aagccaaata gagatcctag gaaacacgtg gtaacaatat gttactatgt 300
agaacccgca cagaaagact ctcaggtgaa agctggtgac gacgctgcgt cctgtggttg 360
gtattctgtg gaaagtctta tgaagagtcc agaacttttt gctttttgac actacg 416

<210> 4997
<211> 455
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E1-G4
<400> 4997

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agtgtacgca cgcagggttcg tctgaggggt tgcagttgtc acgagttgct tgcaatgtgt 120
cgcgacatgg gtttcttgag acagtgcgag gaaaccacac tgacgacgtc ggcccaaagc 180
tcggtttacg gcgtgtacaa cgaggacaat catttggtcc ttcaagcatc gtcagattt 240
taagcacgtt tgaagtcgca ctgtagctct cagtaatgca tggggttacc acggtacaat 300

tagcgatctc agaggcagtt agcaagcttt tcatcactgt tatgaaaact gttagttatt 360
 accagaacgt gaagtcgaag tcaacgtcca ggtacacaat ccaaaaactcc aatcgatact 420
 tgtatacaga atgatccacg gagcattcca catag 455

<210> 4998
 <211> 292
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-G7
 <400> 4998

cggtatagaa ttcccgggct gactcacgcg tcagcccacg cgtccgatgg aggtaaaactg 60
 gtgttgggtt ggggtgtgaa ggcttgaggt ctaaggacct ttacgagagc gtttctggga 120
 ttcttggcgt tacgggtaag acttatagcg catcattcgt tacaggatgg acacagtacg 180
 acttatgaca agacttgtgg ttttccatgg aataaaagta taattttttg taaaagtacg 240
 acgtacgagg cccccctagt cgggaaccgg acgccggcgt gcgctcgcgc gt 292

<210> 4999
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-G8
 <400> 4999

agcccacgcg tccggactag ttctgtattg attgggtcta cgtctgccaa tagtttttgg 60
 accaacttga atattccatt gtatcaagat agtgcacatg gacccaaagc tgcgttgtgg 120
 tatattgtct cgggatttgc gatatgttgg tctatcgtcg tcatgttttg gtttttcaga 180
 cgcaacaagg ccgtgggaat atattgtcgt agggacaacg atgatgcatc ctactagcag 240
 tgatagtaat agtaatagta gccagggaaa aacagagaga gaaagagggg caagcaacga 300
 caaaaacaat ttatacaaat aaaccaagat gtttagcgaa aaaaacaaac ag 352

<210> 5000
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G9

<400> 5000

gccgaccac gcgtcaggaa aagagaagag agctagaaag gaggtgagaa agcataggaa 60
gtgaaacgga ttaggaaccc gtgtagtcta tgcagtaaaa gaaagaatga gtaagaaaaa 120
agggagtcac tccaccaggg gagtaaaggc gcaagaaaga aacccaaagc aattgacggg 180
aatcggaaaa aggggtggat cacgtaaatt aatccgatat aaaccgagaa ccttacctct 240
ccaagaaggt gttgcacggc tgtcgaaaga acgtgctgtg aagtgagaga acgtacgaga 300
aagccaagtg aggaaaagaa ggcaagtaga gggcggcccg agaaaggaga gggcgtaaga 360
cgtgatacag agtaggaaga aaagagaaga gaggc 394

<210> 5001

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H1

<400> 5001

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cgtattattc acaaatagat aaggaagtag tcgagtctat ggaagtttcc gagagtgttt 120
ctgggtttcc tgcagagacg gagaagcctt atagaatacc aaactttaca ccattgactc 180
aagacgactt tgacgaagac ttgtgggttt ccatggaata aaagtatagt tttttgt 237

<210> 5002

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H10

<400> 5002

gggccgacgc acgcgtccac ccacacgtcc gggaaccttc gtattatgtc atcaatgttc 60
ggacgcaaag cagagtacaa gagagttttt aaagttatgg ggttcaagtc catattctcg 120
cacgaaacac cgtattctct ggaaccagct tcagtttagc aagcgagcag agtccacag 180
aaacgacact tatgcacgta gactatttct aactatggaa aaaggggaag aacagaaatt 240

tgcacacca gaagaagaaa gactggcaaa gaaacgtgaa gaagtggaaa gactgcgagc 300
 cgctgaaaag tttatacgta aagatgaagg aaaattcggg tgtcctgtgt gtgattatgt 360
 ctacgaacca agcaaaggag acagtttggc tggatatacaa cct 403

<210> 5003
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-H11
 <400> 5003

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 acgaacaaac tgagtatcac gaataaaaga tggagtagat caggacccaa agctcacgga 120
 agtcacagta agcgcaggag tcattgcta gaaagcagga cagtatttgc tcaacagagt 180
 gtacagctcg tcaacttttgc aaaatctccc aacgagtga cgaggaagcc acactattgc 240
 atcaccagta gccacgtgag acgccaagcc acttgatcat atgctctcca agcgaactac 300
 cgctgagtca tatacct 317

<210> 5004
 <211> 391
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-053-Q1-E1-H2
 <400> 5004

gcgtcagccc acacgtccgg gaaaacaacg tggaaactat cgacagaacc aacttaagtg 60
 tacctccaat agtgtctgaa cgtatgggaa agcgtatggt gtatgctgcc agtggttcctc 120
 tcaccttttt tgttctcctt tttgggtccc tattcgtggc aaagtctcag tttgatatta 180
 cttttatgcc atcggtagta gcgtatagtt cgttggtgct tttttttgt accatggcag 240
 cactgagtta tggatatttt tccgcctcgt gggacgtgga agacgaagga agtttctggg 300
 gttggaaaga gtttcgcata aatattgggc gtacgggtaca agggttcaag gcangtgcaa 360
 gaaaataatc tgagaatata taaaccatat a 391

<210> 5005
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H4

<400> 5005

gggtcgacgc acgcgtcaga aattgttgat gagaccgatg tttatatgga catgaagaca 60
 aagaaacctg ttctctttcg ggggtccagat ggtcgcctac atcgagagc ttttatcgga 120
 ccgaaaaagc cacatactca aataacaatt agagagattg acattggaac tttaaagcat 180
 agttcgagcg acccaaactc atccgttagg agaaaaaagg cggtagaaaa cttcaataag 240
 caagtgatgc gcggcgatat cgatgaatgg agtttgagga acctcgctta cactaccgat 300
 gatattcaag gctatgagtc agattctgac gaggcacccg ataattcaag taatgtcaat 360
 cagcactctc attcttatgc aactgcttcc aacagtagga acaggacagg ggaagagcaa 420
 ggtaataata ccgaggcatt c 441

<210> 5006
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-053-Q1-E1-H9

<400> 5006

ggtcaggaat taccgggccg acccacgcgt caggtaaate gagtctcgtc ccaggcagag 60
 acaggaatat catatattat aatagatat atatattcat attcaaagat agatagatct 120
 tgtttcgtgt angaatgtct gttcttctct ctctccgctt ttccgctgca aggcatccta 180
 gagtttgtcc accactgttg aaaaagtatt tttgtgtgga aagcacttca ggccttccaa 240
 aaagtgaac tctttcaacc aatgttgctt ctagtgacaa tagactcaag gtaaatctgt 300
 tctctacgag ttgttcttac tggactcttt tcagagtagc acggaggaag attctgttcc 360
 tttgtatcgc aatcgccccg gtatccaacc acttcagact ccagttggct cggt 414

<210> 5007
 <211> 385
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-A1

<400> 5007

taccggtcag gaattcncgg gccgaccac gcgtcagccc acgcgtccgc ccacgcgtcc 60
gccacgcgt ccggcatgat gaagagcgt atgaagttct ttgtatttag cattattttg 120
gcaaattgtt ttcttactat tcaagcagca acggttttgg agactttgga gtcactgaaa 180
tatacagagt atcttgacat ggtaaaggct gcaggcctgg actcgaagtt caacgactct 240
gctgttacat ggactgtttt tgcagcaaac aatactggag tcaatgccac cttggcacca 300
aagcacttgg ttattttctaa tatcacatct aatgcgacgg agagcaaaga cattgtggaa 360
tatactttgt acaaccatac tcctt 385

<210> 5008

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A12

<400> 5008

gtctagaatt accgggtcga cgcacgcgtc cgaggagaga gaatcatgaa gtagaggagt 60
atgggtgata gtggtagtgg ggagtataat aataaggagt atatgaggat atggagagga 120
gagtataagg agatggatac ggtacagtac gataagtcag atgggatata tgttaatggg 180
aatgagtatg ggtaataaag aggagagtgt agaattattac ataagtgtat acagtgtaat 240
gatgatggtg atattacgat ggtggagtga gaagagggag aggaggatga acgagttagt 300
aggagaagga aagaggaata gtgtaaagag tataatgtta atgataacga tgtattcgat 360
gatgggaatg ccagtaatgg caggattttg gagtaagtat agggtaatga tggagagtgt 420
aaggagtgga gagtattcga tggggatagt 450

<210> 5009

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A4

<400> 5009

acgcgtccac ccacgcgtcc ggaaacaagc attggaagaa aagaatctat gcaatgaata 60
ttataagaag aaacaattcc aacaagctat cgaacattat aacaaagcta ttgaattgga 120
tccttggaat ttatcttata ttacaaacag agctgctgcc tatttagaaa tgggcgagtt 180
ggatagttgt attgaagact gtcagaaagc agtggattgg aacaaggaat ataacttgag 240
aacagattat aaaataattg ccagagctta tgcaagaatg ggcaatgctt atgcaaagaa 300
acaagattat gacaaagcaa tcgaatgtta tgagaaatcg ctggttgaat atcacgacga 360
caaagtatat tcgaaatgta acgaaatgaa gaaactcaag aagaaa 406

<210> 5010

<211> 383

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-B3

<400> 5010

acgcgtcagc aacataggca tttcatctat tcaatgggtt gaagctggtg aactatatga 60
aacggaagtg agaagcatat gtgcggcatg gtcggcattt tggatatttg ctagtgcctt 120
tgtcaataca tatacattta tcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180
actatataca gggtttactg tgttcttcat gatagtcttg ttcttcatct ttccagagac 240
aaaaggcaag acattggaag aagtgaaaga aattatggaa tgagggtttac cattcattat 300
tcataagaat atcgtagatg catggaataa cgtcaagtat ttgttctctt ttggtaaaca 360
ccaatccaga tccatagaac ctt 383

<210> 5011

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-C1

<400> 5011

ggtcaggaat taccgggccc acccacgct cagcccacgc gtccgacaca caaaaagaag 60
aatgtcgacg acgcttattg aaaagaatgt ggttcaatga cttgagtact tttccagtga 120

cgtattccggt tcttcttttta tgtgtcatta ctggttaata agatatgcct gttggtgact 180
 agttaccgag ttgttactag gttgtttatt acttatcaag gttggtctta tgatatcggt 240
 ggttgtaact acgatcgagt tggttatatat aaagaaactt ggcatggat taaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tatttaaaaa aaaaaaaaaa aaaaaacaat 360
 caaaaatcat aaaaaaaaaa aaaaaaaggg gggccgcctt aaa 403

<210> 5012
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-C2
 <400> 5012

taccggtcta gaattcccg ggcgaccac gcgtcagaga gaagagagaa tgctgggtgg 60
 agtagcgaaa caagagaagg gaagtaaaag gtaagaaaga ggaaagggtt acgagagaag 120
 gaagtagaaa gaagagagtg taaggcgggc tcataataga aatccgaaag gagtagaaga 180
 aaagagagag aagaaagaaa agaagagaaa agccgtactg aagaccgaca caggtactcg 240
 aggagaaagg agaccctaat taagggtgaga gaatggacga taagggaacta ggcaaaagga 300
 tatggtatct gcggtagaac atatgaaaga agcagcaccg actgttttagc aaaaacacag 360
 cactctgcag aaaagagaaa atgtaaagta tagagtgtgc ggcttgccaa atagtagaga 420
 agaaatcgat gaaagtgaag gcgagtaaaa gatg 454

<210> 5013
 <211> 290
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-C9
 <400> 5013

gacgcccgcg tccgtaccga aactgtgaat gatttatgtc cgtatccgct tattgaaaac 60
 aaggaaaaag gtccagtttc tttttgttct atttatggtc caagcggcga ctgtttggat 120
 catatttggc ctggagtgtt gccagttttg aatattcacg actatatttt ctttccaaag 180
 attggaagct ttctatcctt gggtttacgc gaatttaatg acttttcacg caaagtagat 240

actcggtata tcgttacttt gtgaataaaa aacaacgagt tgttttattc 290

<210> 5014

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D12

<400> 5014

gggtcgacgc acgcgtcagg tgagagaaat tcacttcctt agtaactatg cgatgttaat 60

tttgagtttc acatttatag gaaatttctc taaaattgac gattttcttt tattttttta 120

aagttgttta aaaataattt caacaggtat ccaaggttct ttttatagtt cttgtgattt 180

gccgtacttg ggtgggattg gtttatgcga ggggcgtctg ttttattcga tgcccgttcc 240

caagttcctc gctcagctcc ttattgtggg cggtacatac ttatttcgtg cgtttcttga 300

agcttacagg caggctctgt acaacgctca agtaagaggc actgcagcgg gagcagcagg 360

tcaagttttt cgtgaagaag gaaaaatgtc cgtcgaagaa gcttgtaata ttttaggagt 420

atcaaaaggt gattcttggg a 441

<210> 5015

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-D2

<400> 5015

acgctggcag gtgaccggtc aggaattacc gggccgaccc acgcgtcagc ccacgcgtcc 60

gcccacgcgt ccgagatggc tgtttggtt ggggaagctg cctgtacgat cgtatttacc 120

acttagggaa tatagttctc attgttggtc agagacggaa agaataattc ggagcttcaa 180

gattagtttg gggatatacat aaaaagttcc gagagaccat tggcaacgaa ggaaaattga 240

gaagagattg gaatgggcgc gaaacgataa gattcttgcc aactagagtc gatgcaacca 300

ttaggaaaga ttgtgctaga ataataccag cgaacaaagg agtaaataat gtttgatgag 360

agaaaagact caagaagtct atcatcgcca tatcatagag ctgataagtc aatcactgtg 420

tcnttaagaa aaaacaaatc tcttgt

446

<210> 5016

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D8

<400> 5016

agcccacgcg tccgcccacg cgtccggaat ggacgataag gaactaggca aaaggatatg 60
gtatctgcgg tagaacatat gaaagaagca gcaccgactg tttagcaaaa acacagcact 120
ctgcagaaaa gagaaaatgt aaagtataga gtgtgcggcc tgccaaatag tagagaagaa 180
atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaactgtaa 240
ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga aaggagaaac 300
gagtgtagca ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt 360
aaactagcag taggacggaa agaccccata attcttgact agataggttt agggacgaga 420
gagaatcatg ag 432

<210> 5017

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D9

<400> 5017

cgtcagggtg aaatatccca tcagctttcc aaccttctcc acgcggtata cgagtgcgaa 60
tataccgagg tggagtggct accttgggtt tggtgttcag aactgtcga aaacgcaata 120
gtatgggaag acatactggt gcttcaaggc gccaaactgc tggatattta tgctgaagga 180
ttacaactgt tcaacaagtt tcgtcgtcac ctgatgaacg tgcctttgt gggagacagc 240
aaactatggg attcactatc tcgtttcttg ctgtttatcc aaccgagtca ttccacttgt 300
tggaactttc gaaagtttct cgttcaacac catcacgctt cctatcttat ggagctaaaa 360
gtgagtgaaa ttgccgttga agagagatgc cacagcaagc caggcttggc accatagaaa 420
gtggttg 427

<210> 5018
 <211> 327
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E4

<400> 5018

accacgcgtc agcccaagcg tccgctttta tgaaatggca agatgctagc aaaaagtcaa 60
 tcggcttggt caaggtcatg agtgaataat gtcactgggc atttgatgta atttcgaatc 120
 tcatacagtg ttggccatct catagggcaa ataatgacta agagtttata gaaatcattc 180
 caccaaggga gtaaaggcgc acgaaagaaa cccaaagcaa ttgacgggaa tcggaaaaag 240
 ggggtggatca cgtaaattaa tccgataaac cgacaaccgg acctctccaa caaagtgttg 300
 cacggctgtc tacttaacgt tcagtga 327

<210> 5019
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E6

<400> 5019

gtcaggagtt cccgggtcga cccacagcgt ccggacagag ctgccacaga gctacttgtg 60
 aagactgccc tcgaagatca cggactgaac tttgatccct tagatactga caaggacctg 120
 gtatatcctg agaaatatta tgagccttgt ggaggcgaaa tgtggatcct tgagcacgat 180
 aacacagtgg ttggctgtgc tgcctttttg cctattcctg atacgtgtgc ggtagagttt 240
 cgaaagatgt acttttctcc gaacataaga cgcaacgggt atggaaagct aatacttgga 300
 gccttagagt atccagcctt tgagttggga tacacatagg gtacattgga aacgtcgac 360
 ct 362

<210> 5020
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E8

<400> 5020

gtcaggagtc cccgggtcga cccaagcgtc cgagaatgga gtggagaagg aagaggagac 60

actagtccaa gttcggatcc attaactttt accaaacttt atgtgggttc tattcacttt 120

tctattagtg aagaagattt acgcactatt ttgagcctt ttggggaagt cgtttccttg 180

cagcttcaca aggaccctga aacgggacgt tcacgagggt ttggttttgt tcaatacaga 240

aaccacgaag atgcgaaaaa ggcattggaa caattgaatg gacttgatct tgctggtagg 300

ccttttaaagg ttggtttggc aactgcagag actcagaaac ttcaagtaat ggggtgctatt 360

ccttcgggag ttcctagtac aatagctgcg aggagcttat caagtagggg ttatagtgc 420

tatattagtg aattggatga aggtggagat a 451

<210> 5021

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F2

<400> 5021

gaccacgcg tcagcccacg cgtccggatt tctgtttgac gcgcttcgtg tccccacttt 60

cccttttttg taaatcttcg aaaggctgga taggacaagc atcattattc aaggtaactc 120

atgtataggt ggaaataagg cttctgtcga agtttcttat accggaaatt ttaaagaaag 180

acagtcgttt ttgccagcgt cttttgctag aagaagtggc tggctccctt tgaggctaac 240

tgaagaaagc tactttggct ggccaggaat agtgaatatt gccaagagct tattctgtta 300

tattgtttct cagttgagag aattttcagc aagctcagca ttgtttgcct gtaaaaaggg 360

acttgctaga agcaatttat ttgactccag agaaaagttt gatatcaac 409

<210> 5022

<211> 459

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F9

<400> 5022

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ccttcactga cggtggatgc tgcagttgta cgaggtttga agccagcact agaaatttta 120
 ttggttacta gaaagaaaga accgttccag ggtcgcttgg cttttcctgg aggttttggt 180
 gaatatggtg aggatcctga gcaggcagtt ttgagagaac ttgaagagga gtgtggaata 240
 cgagggacga gtccttcgct cgttgccgtc cgtgggaagc caaatagaga tcctaggaaa 300
 cacgtggtaa caatatgtta ctatgtagaa cccgcacaga aagactctca ggtgaaagct 360
 ggtgacgacg ctgcgtcttg tggttggtat tctgtggaaa gtcttatgaa gagtccagaa 420
 ctttttgctt tttgacacta cgagttgttg caacaagtt 459

<210> 5023
 <211> 463
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-G1
 <400> 5023

gtccagaatt accgggccga cccacgcgtc aggacaatgg ttgcaaagac tgctctgagt 60
 tgctcttttc tctctttcct tatcgctgcc gcagttgcag ccgacgtagt ttcagaggag 120
 agatggggat atgctcagca aaccaacaa cagcaacagt gccaacaagt atgtaaacag 180

tatgcatact atcagagtcc agtctgcact tccgtaacca cacagagccc atactggacc 240
 caatgctcga agactgtgca aacctttgtc ccaagccagt gcagtactta tacccaatct 300
 cctacatgga cctattgcag cacctacacc accactagcg taccatctca atgcagcaag 360
 gccgtgacta cctatactca aacctgctgt gcttatgccc aaaaacttc ctatgcagtc 420
 agtaccgagc aatatgttca ggaaactgta tctgctcaat ata 463

<210> 5024
 <211> 257
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-G4
 <400> 5024

cgtcagccca tacgtccgat cttagttcca gtgtacgcac ccatgggttcg tcggaggggt 60
 tgcatttgct acgagttggt tgcaaagtgt cgcgagtgcg gtttcttgaa atagtgcgag 120

aaaacctcat tgacgacgtc ggctcaaagc tcggtttacg gcgtgtacaa ttaggaccat 180
catttggtcc ttcaagcatc gcccagattg taagcacggt tgaagtcgca ctgtagtctt 240
cagtaatgca ggggggtt 257

<210> 5025
<211> 449
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-053-Q1-E2-G9
<400> 5025

ggccgacgca cgcgtccaga aaaaagaaga gagctagaaa ggaggtgaga aagcatagga 60
agtgaaacgg attaggaacc cgtgtagtct atgcagtaaa agaaagaatg agtaagaaaa 120
aagggagtca ttccaccagg ggagtaaagg cgcaagaaag aaacccaaag caattgacgg 180
gaatcggaaa aaggggtgga tcacgtaaat taatccgata taaaccgaga accttacctc 240
tccaagaagg tggtgcacgg ctgtcgaaag aacgtgctgt gaagtgagag aacgtacgag 300
aaagccaagt gaggaaaaga aggcaagtag agggcggccc gagaaaggag aaggcgtaag 360
acgtgataca gtagtaggaag aanagagaag agagctagan aggaggtaaa agaagagtaa 420
aaggactaga agaggtacgg aattcacga 449

<210> 5026
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E2-H10
<400> 5026

gccgacgcac gcgtccaccc acgcgtccgg gaaccttcgt attatgtcat caatgttcgg 60
acgcaaagca gagtacaaga gagtttttaa agttatgggg ttcaagtcca tattctcgca 120
cgaaacaccg tattctctgg aaccagcttc agtttagcaa gcgagcagag ctccacagaa 180
acgacactta tgcacgtaga ctatttctaa ctatggaaaa aggggaagaa cagaaatttg 240
catcaccaga agaagaaaga ctggcaaaga aacgtgaaga agtggaagaa ctgcgagccg 300
ctgaaaagtt tatacgtaaa gatgaaggaa aattcggttg tcctgtgtgt gattatgtct 360

acgaaccaag caaaggagac agtttggctg gtatacaacc tggaacatct tttgaggctt 420
taccgatag ttttcgttgt 440

<210> 5027
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H5

<400> 5027

aattcccggg ccgacccaag cgtcaggtca ctggaataac aatatattac aaattgcac 60
tgttttggtat gagcgtttca aagcttgata aagagattca agttgcttcc ttttgaaaaa 120
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaaaaaaaa 180
aaaaaaaaat aaaaaaaag ggtgaatgta aaagcaaata aaaagcacat taaaaatgaa 240
aataaaatta aagacaatgg ccataaaaat gaaaattgcg gaaaagggaa aacacttaaa 300
caaaacaa 308

<210> 5028
<211> 441
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H9

<400> 5028

attcacgggt cgacgcacgc gtccagtaaa acgagtctcg tcccaggcag agacaggaat 60
atcatatatt ataaatagat atatatattc atattcaaag atagatagat cttgtttcgt 120
gtaggaatgt ctgttcttct ctctctccgc ttttccgtcg caaggcatcc tagagtttgt 180
ccaccactgt tgaaaaagta tttttgtgtg gaaagcactt caggccttcc aaaaagttaa 240
actctttcaa ccaatgttgc ttctagtgc aatagactca aggtaaatct gttctctacg 300
agttgttctt actggactct tttcagagta gcacggagga agattctgtt cttttgtatc 360
gcaatcgccc cggatatcaa ccacttcaga ctccagttgg ctcgtttaat aagcagcaag 420
taattcccaa tgagaatcac g 441

<210> 5029
<211> 416
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A10

<400> 5029

ggtaacggtc aggaattccc gggccgaccc acgcgtcagc gtgagggtag ttcacatcatgg 60
ttgagacaaa acttcaagat ggtgttagtg cttctctttg gactgttcgt ctcttcctct 120
acacagttat tttagcattc tctgccacta tcattggctt ggatggacgt aaagcagaca 180
acatatggaa cgacagctta ttctatgatg ggaagtacat taacttttgt gcttattctg 240
cctcttctgt tgtagaagga ggggaccatg gagcgtgtaa atatgtcatg gcgttggcgt 300
ctataagttt gattctagtc tttttcttgt ggctttttac attttagatg gcgttgtatc 360
ctattcttac caagttttgg tttattgaat tgggtatcaa cgtgtttcaa acaatg 416

<210> 5030
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A12

<400> 5030

gtcaggaatt cccgggctac cttttcggtt gtattgaaga atcattttcc ggaatgtgag 60
caacaactag agcaatgggt ggtggatacc tgtgggatca aggaaacggg tgaagatttt 120
tatatgcgtt ggaacgagca acacatgtct tgggtgcaac ctttgaaga aagtcaacga 180
caatggttgc aaagattgta ttccacagca ccgattgtac aattgcaagg gaagatagag 240
gagttggaag atattcggat tcaagtgagt tggaaagtat cgctatccta tgataagcaa 300
cgcagtcttt ggtggaatca gaatagcaac aaaagagcca gtcgggaaac ttggtatatt 360
ctactgggta aatacaacac tgggaaaata agtgcttttc 400

<210> 5031
<211> 183
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A2

<400> 5031

cccaagcgtc cgcccatgcg tccgacaaat tcccaaacgg agttgagctc gaagacttca 60
aacgggtcttt gtcctgcagg aaactatcca aaactaaagc aaagttctta taaaaaaaaa 120
aaaaataaaaa aaaaaaaaaag aaaataaaaa aaaaaaaaaa aaaagaaaaa aaaataaaaa 180
ata 183

<210> 5032

<211> 311

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A5

<400> 5032

gaccacgcg tcagcccacg cgtccgccc cgcgtccggg atgccatcct tattggtaca 60
agtagcctat tgtattcatg atgtgccacc tataatctacc tgtgtacgca ctatgttctc 120
cgagtttttg agaagtcac acgaggaatg gcccacaaca aagcaaagt tgcaagccga 180
tcaaagagaa gcgttgaatg aattgctcat cgcaccaagt tattatgctt gaatcgttgc 240
cctcctccat aaaacccatc tcgtggcatt tttttttaaa aaaaaaaca aacaaaacat 300
aaaaaagcaa g 311

<210> 5033

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A6

<400> 5033

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gccacgcgt 60
ccggaaagaa agaaagataa gtgaatatca tatggtggat gtgagtccat ggccaatact 120
gacagtagta gcattgatgg gaatattgat aggaatgata gagtggatgc attcgatggg 180
taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatgggtggag 240
ggatgtaata agggagggag tattagaagg tccaaacaag agaagtcagc agtggggaaa 300
attgggcaat gtacagggaa gtatgaccca gtaatgagga gtggagtaaa cagaaaagga 360

agtaaaagga gggaatgaag ggaagttatg gcaaaaacac gtgccagcag cagcggtaaa 420
a 421

<210> 5034
<211> 412
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E1-A7
<400> 5034

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgtaattt 60
gtcgatggca atgtctacta ccaagccaaa agtacttgcg ttgtatcgac atatgttgag 120
atgtattaaa actttacccc cacaagtaca gccttactac agatactatg tgagacaagt 180
atgttttttt gtttgttggt caacactcgt tctctcttac ggtacttttag caattcaata 240
gtcacgcaga cgagatagaa gaagaaagag tggaagaaat catatccaag tctcgttctt 300
atattccgta tatattagac aaggtaagtt tgtgttttat ttgctgtgaa tattttctcaa 360
aagacttgca cagtacaata gtaaaccacc tagctaagac tttcgtggac gt 412

<210> 5035
<211> 415
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-054-Q1-E1-B1
<400> 5035

ccggtccgga attaccgggt cgacgcacgc gtccgtgctt tttgtacggt tgacaattgt 60
cgtcaatcac cttcgggata tgatcaacga gtggaagttt ttggttccaa aggcctcgtt 120
cgttttggga acaactttcc caataatgtc tttattgaag atgcgcagtc cgttcgaaga 180
agtgatcttc cctttaactt ctttatggat cgttataccg aagcttatcg taatgaaacc 240
aaacagtttg ttcaatgtgt cttggaaaac aaagaacctc cgacaagtgg tcgagatgga 300
actgctgcaa tggcaatggc aattgctgca aaaagagttt gttggggaaa agaaccgtta 360
aaacttacga aaattacccc ttngaaataa taaaatgggtg ggtttatcca ntctg 415

<210> 5036
<211> 406
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-B10

<400> 5036

aattcccggg ccgaccacg cgtcaggtgg gaaacatgtc gaagaagcct tctggaagac 60
tttattgtaa aggggtagtg ttgggttata aaaggtcaca acggaatcaa tctcctagtc 120
aaaccagaat caagatacag ggagttgaag atcgagcttc gacagcgttt tatttaggaa 180
agcgtgtggc atatgtttac cgtgcaaaga gaccaagaaa gagtgttgga ggaaagaaaa 240
caaagattcg agtgatttgg ggaagaatta ttgcaccaca tggtaataga ggagtagtac 300
gtgccaaagt tcgaaacaac ttgccacctt ctagttttgg caaacgagta agagttatgt 360
tgtatccaag caacgtataa acaagtgcct taaaatttta atcttt 406

<210> 5037
<211> 254
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-B7

<400> 5037

accacgcgt cagatcgttg ttgagatatg cgaacatcca tcacattcac ttgttgga 60
ccgttgcatc gaacttcatt gaacgtaatt tgctcgtcta gtttttgcct aaacaactct 120
attccgtacc acgctaaca cataaggagt tgtgtatttc cgcagaccat ttatggaaca 180
cctgtcgaga tgcacaagct agaagtggat gcaaaccaga tgcgaatgca ttttgatca 240
gttccaagc aggt 254

<210> 5038
<211> 415
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-C1

<400> 5038

gggtcgagcc acgegtccat ggaagaagag tcttatatcg atccccgattt atccaaagtt 60
 gcgaaagaag aaggaaataa tttgtataaa caaggccaat ttccagaagc cctgcagaaa 120
 tatacggaag caatcaaacg caatccaaag gatccagttc cttatagtaa tagagcagct 180
 actttgacca aactaggaca attcccttct gctttagcag attgtgaaaa atgtttgcag 240
 ctagatcctc aatttgtaag agcttatgcc agaaaagggtg ctattcattt ctatatgaaa 300
 gaatatcata agagtttgga tgcctatcaa caaggacttc aagtggatcc taataatgca 360
 gaattgaaag aaagattgca gaaaactttg agtgccaatt gcaaacaaca acgct 415

<210> 5039
 <211> 336
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-C10
 <400> 5039

ggtaacggtc aggaattccc ggggtggacc gcaaatacaa gcattcaagc acctctttat 60
 tggatatcat ttctatggac aaggtagaag aactaaagtc actgggtcaat tccgtggaag 120
 aagactgcaa taaatttttt gagaacggaa acaagtcagc tggagttaga gcaagaaaga 180
 acttgcaaga aatcaaaaaa cttgctcaag aactacgcat agagatacaa gcgacgaaac 240
 aaactgaaaa gtgatacttt caactgtgca gaatcaacca tggcttgtga aactattcca 300
 gtttttcaaa taaatacctt ttttcgtttg taaaag 336

<210> 5040
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-C11
 <400> 5040

ccgggtcgac ccaaacgtcc gccacgcgt ccgattctga gtaaaaaaga gccgggttac 60
 ttcacgaaag aacatcgga atgccgctcg acggaaatat aattttcatt gttgggaatc 120
 gattttgcgc aacctttgca tcccctaag gttggtagag acggcggaaa agcgaagcct 180
 ttgaagaagc caaagcctac ttcgaaggaa ctgacggagg aggatttgga atttaagaaa 240

agacaaaagg aggagcaggc caagttgaaa gcagctcaac agcagttgaa aggaaagggc 300
aagaagtgac tttgcttcta cgagtttagct aaacaaacgc tttatttgtt tctacaacta 360
ttcgggtact ttttgatagt ttccgtgaac 390

<210> 5041
<211> 334
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E1-D1
<400> 5041

ggtcagaatt accgggtcga gccacgcgtc cgtgcaaacg tccgatgaac ctcaacaagg 60
tggcagtaat ggagcatttc aagaatttac aatgcttggg tgactatcaa cacattgata 120
ggatgaatata tggaatata taggataagt ttacaaaaga ctcaagtcca tcgaatagaa 180
tcctagtggc atcaacattg acatccgatt ggattctggg aacatatata gatcaaattt 240
cattggaaaa cagccgtact gatgaccgat acacgtacat ccagatatcg gcgaccact 300
ttaagtttag atattggtcg ataaggaact aggc 334

<210> 5042
<211> 417
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E1-D11
<400> 5042

ggtcaggaag tcccgggtcg acccacacgt ccgattcatt gcggatcgcg tttggggctt 60
gtaacagtca ccatgaagta ttcccaagtt gtatcgctcg ctagaagaaa gcagaggaga 120
gcatacattc aagcaccatc gtctgtacga cgaataactca tgagtgcac cttgtccaag 180
gaactacgta tgatatacag ggttcgttct ttacctatgc gataagaaga cgaggtaatg 240
atagtacgcg gagctttcag gggtagagat ggacaagtca caacgtgtta tcgagggaaa 300
taccggatac agatcgagag agtgaccaga gaaaatgcga atggaatgac tgtagctgtg 360
ggaagacatc catcgagtgt tgtagtacc aggtgaaagt tggacacgga caagaat 417

<210> 5043

<211> 327
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-D12

 <400> 5043

 gtcaggagtc ccgggcccgc ccacgcgtca gattctgtgc gaggagcgtg aggggcatgt 60
 agtaatgacc atgaactatt ccaagggttg atcgtcgtct agaagaaagc agaggagagc 120
 atactttcaa gcacgatcgt ctgtacgacg aatactcatg agtgcattgt tgtccaagga 180
 actacgtatg atatacagcg ttcgttcttt acctatgcga tcagaagacg aggtaatcat 240
 agttcgcgga gctttcaggg gtagagatgg accagtccca acgtgttatc gaggggaacta 300
 tcggatacag atcgagagag tgacccg 327

<210> 5044
 <211> 379
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-D2

 <400> 5044

acgcgtccac ggaagcgtgg gttttgcaca aaatattcga cgtcgccatt gagcagccgt 60
 gatgggacgt gtaatacagag gccagagaaa gggagccggt agtgtatttc gtgcgcatgt 120
 cgtcgaatga aaaggagcag ccaagtttag agcgttgat tatgccgaaa gacacggata 180
 tctaagagga gtcgtcaggg aaatcatata cgaccagga agaggagctc ctttggctcg 240
 agtggaattt agggatccgt atagatatga gagaagagta gagactttta gtgcaccaga 300
 aggtttatat acgggacaat tcctgtactg tggaagaaa gcccaactaa gcaatcggt 360
 aagtccttcc acttggttc 379

<210> 5045
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-D3

 <400> 5045

acgcgtccac ttttatctct tgtagcacia acacaaatta aagaacaatg cgtgaggtta 60
 tttctctaca tattgggtcaa gcagggtgttc aagtagcaaa ctcttgctgg gaactttatt 120
 gtttagagca tgggtgtcaac gctgatggaa ccattgataa aaagggaac acagcaaacg 180
 aagaagcttt tggtagcttc tttaccaga caagctcggg acgatatgtt cctcgttggtg 240
 tacttgctga cttggaacct tctgtcgtag atgaagtccg tacagggtgcc taccgccatc 300
 tctatcatcc agaacaactt atttccggca aagaagatgc tgcaaacaat tatgcaagag 360
 gacactatac tatttgaaaa gaaataatcg ac 392

<210> 5046
 <211> 306
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-E1
 <400> 5046

ggtcaggaat taccggggccg acgcacgcgt ccaccacac gtccgcccac gcgtccgaga 60
 gtttattcat ttacctggcg atgtgttttc caatccgcgt ccaatgcagg ctataggaca 120
 agttcctggt gctggctggg tacaaatatt tcttcttggt gccattcttg agatgataga 180
 catagcagct attaaggaaa ccctccaggg aaatagagag ccagggtatt tcggctttga 240
 tctctgggt ttggcaaacg acaaacaggc tcatgatcga tatcttttgt cacaactgaa 300
 gaatgg 306

<210> 5047
 <211> 209
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-E5
 <400> 5047

ggtaacggtc aggaattccc gggccgaccc acgcgtcaga aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaagggc ggcggcccga caggctccag gcttaaattc tcgttcatgc tacatcaaac 180
 ctcttctatc ttgtcaccta actccaatt 209

<210> 5048
 <211> 188
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-E8

 <400> 5048

atcacttttt cctacactgt atcacgtcgt acgccgtatc aaagaaggtg ttgcacagat 60
 gtcaacagaa agtgatgtta catgagaaaa cgtaacaaat acgacagtga agtctggact 120
 gcaagtaaag ttcagcggaa cagatgaaag ggcgtactac atcattcaca atacagcgta 180
 ccgtcctg 188

<210> 5049
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E1-F10

 <400> 5049

gtcaggagtt cccgggtcga cccaagcgtc cgcgttccga ttgcaattgc acttgaagag 60
 atttgtgtgg ttctagttg ttagtgtttg tgtggatgtt ttatggggaa ccaaaactcc 120
 tctggagtat tttcaccgga aatgtcttat cgtataggag gtactagaag tggttccgaa 180
 acttttcgta accacagtga tgcttctttc tccaacaacc aaccctttgt agacaatgta 240
 tatgtttttg aaactcctca aggagtggca gcaacaaaca atataccttt tcaactctca 300
 gaaagaacat atcggggaca gaggtccggt tctagggcca atcttgtctt ggaaggtcag 360
 cctccaagta accaacagct gccttctcaa caacagggtta gttgatgtat gccttgctcn 420
 cttcgatagt ttctgatata tatata 446

<210> 5050
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E1-F3

<400> 5050

gggccgaccc acgcgtcagg ttcgttcaga tctccgcagc ttaacgatta ttgtggattt 60
ttgttgcaag gtctctttat aagaaaagac taggattagt ttatacaaac gacagcaaac 120
tttgtatctt tttgttcctg ggtaaatttt ttatctccta gtgggttggt agctangaaa 180
agggttggtt taaagctgtg ttaccttgag aaggtagcaa atatccactc ctctgtactag 240
tctgtttgta aggcttactg ggagaaactt ggtgaaactt ttcacttgta tgttggtgctt 300
ggtcgcctca cagtcgaata ggctctgaac ctggtgaagc tattttgagt aaagagaccg 360
atagtaaaag agacagtccc gcaccctcat ggagaaatgc ttc 403

<210> 5051

<211> 398

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G12

<400> 5051

ccgggtcgac ccaagcgta gattttgggt ctccgacatc gaacattccc tcaagtgaga 60
gatattgcag gaatgtgaaa aattgactgt cccagagttg aacatagcaa cgtatcaacc 120
atctggcgaa cttttgatgg tcatggtact tatcgaaaga atctcgagac taaccttcgt 180
acaatagata tcgcagattc tagctggtat tatgcaagtg cagaggaaga tacctccatg 240
tcaatctgta cagaaaatcc ccaagcagat aattcactag cttcgaaact tgagttcaag 300
atatgttggt gagttacgtt actctcgctg attttccgag attccatatt ggatgatcga 360
gcgattggat gtgcatagag acgtgtact ccaggctc 398

<210> 5052

<211> 122

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G2

<400> 5052

gcgtcaaadc ggacacagga gcatcggact tcatgggtgt aggaaccgag tcagccagaa 60
caaagacac ggaattactg agggacgctg acggttacgc accaaagtga aacggtagtc 120

<210> 5053
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-G9

 <400> 5053

ccgggctcga cccaagcgtc agagcggatg cagaaattgc agttcgtaat ggagtagctg 60
 gtattattgt gagcaatcat ggagcaagac agttggatac ttctcttgcc actattgatt 120
 gtttgga aaa agtacttgca ggtgcacaag gcaaagttcc tgtgtttgta gactctggag 180
 tacgtcctgg tacagatata gtgaaaagtt tggcacttgg tgctcaagct gtacaaattg 240
 gtcgtggtgt cttgtgcggt ttagcagttg gtggggaata aggtgtggat cgagtgttga 300
 agttgcttcg tgatgagttt gaggttgtac tgggactttg tggctgtcat agtgtcaaag 360
 atattcgtag agatatggta atcagaaaca ca 392

<210> 5054
 <211> 368
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-H10

 <400> 5054

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 cctagtggta tgtttacaga ggagattgat cgatatactg gtttcgagca aggagctatc 120
 aatttaactt ggagttatga tgcctttgtt actgcggttt ggtcaagaga agatgttcac 180
 aagttgtttt ctaaattattg tgaacctcct tctccacctc tacctagtat gccaggacct 240
 ggtggtttat cttctccata ataagaggca cttgtgcact ttggatattt ttgtggttca 300
 cataaagaca agctttatta agaagcacac agaagaaaaa atcagtacaa ttgtaacaca 360
 atcgcaac 368

<210> 5055
 <211> 409
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H2

<400> 5055

gggccgaccc acgcgtcagg tgggaaagag gacgttggac gggcattgtg gaagagcggt 60
ttgggttcctg gatagctcat gtggcgaaca actcttgtcg ccttgtaaag acgataccct 120
atacacaggg taatgcaaaa aagttttgcc gatcaagttg cacaatcgac atacacaacc 180
atacgtgggt ttgccacacc tacacatgcc cttcgatacg acgcccacgt ggctatggta 240
atgttcccag catctactgc aatgaatggc gtacttcctc aacatgtgcc tacagctgct 300
caactgaaac ctgcagtggg gactgtccta gaatatggca cagatgacaa atattttgtg 360
agtagtggat ttgcctttgc taccaaagca cgaatagata ttttggctg 409

<210> 5056

<211> 264

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H3

<400> 5056

cccacgcgtc aggacttggg aaaataaagc aaggagatcc actcaatttg gagactatgg 60
tgggagctca agtatctact gaacagatgg ataagattct tcactatgtg gaattgggaa 120
agaaggaagg tgctcagtgt attgttggat gaagtggaaa gaaagctatt ggacgtgatt 180
tcaaaggtgg ctattacatt gaaccgacaa tattcaaggg agataacagg attagaatat 240
tccaggaaga gatatttggg ccat 264

<210> 5057

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-A10

<400> 5057

aattaccggg tcgacgcacg cgtcagcgtg agggtagttc atcatgggtg agacaaaact 60
tcaagatggg gttagtgtt ctctttggac tgttcgtctc ttcctctaca cagttatttt 120

agcattctct gccactatca ttggcttggg tggacgtaaa gcagacaaca tatggaacga 180
cagcttattc tatgatggga agtacattaa cttttgtgct tattctgcct cttctgttgt 240
agaaggaggg gaccatggag cgtgtaaata tgtcatggcg ttggcgtcta taagtttgat 300
tctagtcttt ttcttgtggc tttttacatt tgtagatgcg ttgtatccta ttcttaccaa 360
gttttggttt attgaattgg gtatcaacgt gtttcaaaca atgtggtggt tggttggagc 420
aattgttgta tctgca 436

<210> 5058
<211> 219
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-A2
<400> 5058

agtacggtta gaatgccggg tcgaccctag cgtccacgca cgcgtccgcc caaacgtccg 60
acaaattccc aaacggagtt gagctcgaag acttgaaacg gtcggtgtcc tgcaggaaac 120
tatccaaaac taaagcaaag ttcttataaa aaaaaaaaaag aaaagaggaa aaaagaaaaa 180
aagaagaaaa aaaaaaaaaa aaaaaaaaaa ggggaaaaa 219

<210> 5059
<211> 366
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-054-Q1-E2-A3
<400> 5059

cgggtcgacc taggcgtccg acggcgtaag acgtgataca gagtaggaag agaagagaag 60
agagctagaa aggaggtaga agaagagtgg aaggactaga agaggtacgg aattcacgac 120
gaaggagcgt gaaggaagga ggaatcccaa gtaatcgagg aagaaaaagc ttcggtgaaa 180
gcgtgaacgg atttgtggta cacactgccc gtcaagttct ggaagtgtgc tangaataag 240
caggagaagt agaagaggag taggagggcg ggaggggagg tggagacgta agacgtgaaa 300
aaaaagcgta agacgtgaga cagagtagga agaaaagaga acagagctag aaaggaggt 360
aaagaa 366

<210> 5060
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-A6

 <400> 5060

ggtaccggtc tagaattccc gggccgaccc acgcgtcagc ccacgcgtcc gcccacgcgt 60
 ccggaaagaa agaaagataa gtgaatatca tatggtggat gtgagtccat ggccaatact 120
 gacagtagta gcattgatgg gaatattgat aggaatgata gaggatgagc attcgatggg 180
 taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatggtggag 240
 ggatgtaata agggagggag tattaggggtg gtcgaggcga gggaagtcag cagtggggaa 300
 aattgggcaa tgtacaggga agtatgaccc agtaatgagg agtggagtaa acagaaaagg 360
 aagtaaaagg agggaatgaa gggaagttat ggcaaaaaca cgtgccagca gcagcggtaa 420
 aacgtgtgta gcaagc 436

<210> 5061
 <211> 412
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-A7

 <400> 5061

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgtaattt 60
 gtcgatggca atgtctacta gcaagccaaa agtacttgcg ttgtatcgac atatgttgag 120
 atgtattaag actttacccc cacaagtaca gccttactac agatactatg tgagacaagt 180
 atgttttttt gtttgttggg caacactcgt tctctcttac ggtacttttag caattcaata 240
 gtcacgcaga cgagatagaa gaagaaagag tgggggaaat cagatccaag tctcgttctt 300
 atattccgta tatattaaac aaggtaagtt tgtgttttat ttgctgtgaa tatttctcaa 360
 aagacttgca cagtacaata ataaaccacc tagctaagac tttcgtggac gt 412

<210> 5062
 <211> 420

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-B1
 <400> 5062
 aggtagagcg ttaagaaggc acgggtcgac ctacgcgtcc gtgctttttg tacgggtaac 60
 aattgtcgtc aatcaccttc gggatatgat caacgagtgg gagtttttgg ttccaaaggc 120
 ctcggttcgtt ttgggaagaa ctttccgaat aatgtcttta ttgaagatgc gcagtcggtt 180
 cgaagaagtg atcttccctt taacttcttt atgggtcgtt ataccgaagc ttatcgtaat 240
 gaaaccaaac agtttggttca atgtgtcgtg gaaaacagag gagcgcggg gagtggtgga 300
 gatggaactg ctgcaatggc aatggcaatt gctgccaaaa agagtttggtt ggagaaaaga 360
 gccgtaaaac ttagcgaaat tactccttaa gaataataaa atgttggttt aatctagtcg 420

<210> 5063
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-B10

<400> 5063
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 aagactttat tgtaaagggg tagtggtggg ttataaaagg tcacaacgga atcaatatcc 120
 tagtcaaacc agaatcaaga tacagggagt tgaagatcga gcttcgacag cgttttat 180
 aggaaagcgt gtggcatatg tttaccgtgc aaagagacca agaaagagtg ttggaggaaa 240
 gaaaacaaag attcgagtga tttggggaag aattattgca ccacatggta atagaggagt 300
 agtacgtgcc aagtttcgaa acaacttgcc accttctagt tttggcaaac gagtaagagt 360
 tatgttgtat ccaagcaacy tataaacaag tgctttaaaa ttttattctt t 411

<210> 5064
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-B12
 <400> 5064

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 agaaacaact ttagaagatg aacttgtctt agatgcacca gcacaaaaga cattaaactt 120
 atataaagta gataattata cttttggcac gaagcagtca tccccaaaac aacacgaaag 180
 aaatccacag cgttttaaagg aaaaatatca agaaaggggt ttgaggcact ctgttgcagg 240
 agtacttctt gtacatcacc atcgacatcc gcacgttctt gtattacaac aaaccaagga 300
 ctctggaagt ttttggttc ctggtggccg tttgcgtcca ggtgaagggtg acttgggaagg 360
 tttatcgagg aaactagata atcgcttaag gagtcctca caagagaagg gcagctggga 420
 aataggagac tttttg 436

<210> 5065
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-B3
 <400> 5065

aggtagcggg tcagaagtcc cgggtcgacc caggcgtccg cccacgcgtc cggataaata 60
 tggaatcctg gaaggtttga tgacgaccgt tcatgcaact actgcaacc aaaagacagt 120
 agatggacct tctcacaagg attggggagg aggaagagga attttgaata acattattcc 180
 atcttctact ggagcagcca aggctgttg taaagttatt cctgaactga atggcaagtt 240
 gacgggtatg gctttccgtg ttccttgtcc ggatgtttct gtcgtcgatg tcacgtgtcg 300
 tttaaagaca ccaaccactt atgacgattt caaggcaacg atgaaagctg cgtcagaaag 360
 caaagcttta aagggaatat tggcatatac cgaagatatg gtagtttcta ctgactttgt 420
 tcacaatagt c 431

<210> 5066
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E2-B9
 <400> 5066

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gacctttaag gcttgatttt tccgattatc atactaaacg ctgattttac acacaactca 120
cgagaaattg atattagagt cgacgagaaa gaaacatatt gagaactgat gttaatctgt 180
ctagctgttg gcaataagac aagctacggc gtctttccaa gtttctttca actcttataa 240
acaaaacaag taaaacgcct attcactact ggtaaagtct tttctttcga taaaaaaaaa 300
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga agaagggcgg naggtctaaa 360
ggatacatgc ttacgtatgc gtgcatgcaa cgt 393

<210> 5067
<211> 443
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-C1
<400> 5067

tagcggttaa gaaggcccgg gtcgaccag gcgtccgtgg aagaagagtc ttatatcgat 60
cccgatttat ccaaagttgc gaaagaagaa ggaaataatt tgtataaaca aggccaattt 120
ccagaagccc tgcagaaata tacggaagca atcaaacgca atccaaagga tccagttcct 180
tagagtaata gaggagctac tttgaccaa cgtaggacaa ttccttctg ctttagcaga 240
ttgtgaaaaa tgtttgagc tagatcctca agttgtaaga gcgtatgca gaaaagggtgc 300
tattcatttc tatatgaaag aatatcataa gagtttgat gcctatcaac aaggacttca 360
agtggatcct aataatgcag aattgaagga aggattgcag aaaactttga gtgctattgc 420
agaacaacaa cgctccgaga aac 443

<210> 5068
<211> 323
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-C10
<400> 5068

aattctcggc gtggagccca aataaaagca tacaagcacc tctttattgg atatcatttc 60
tatggacaag gtagaagaac taaagtcact ggtcaattcc gtggaagaag actgcaataa 120

attttttgag aacggaaaca agtcagctgg agttagagca agaaagaact tgcaagaaat 180
caaaaaactt gctcaagaac tacgcataga gatacaagcg acgaaacaaa ctgaaaagtg 240
atactttcaa ctgtgcagaa tcaaccatgg cttgtgaaac tattccagtt tttcaaataa 300
ataccttttt tcgtttgtaa aaa 323

<210> 5069
<211> 185
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C11

<400> 5069

attcacggct cgacgcacgc gtcagcccac acgtccgatt ctgagtaaaa aagagccggg 60
ttacttcact aaagaacatc ggaaatgccg ctcgacggaa atataatttt cattgttggg 120
aatcgatttt gcgcaacctt tgcaccccct aatggttggg aaagacggcg gaaaagcaaa 180
ccctt 185

<210> 5070
<211> 353
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C3

<400> 5070

cgggtcgacc tacgcgtcga gacaatattc acaacgcact ccaccaaca agactgttca 60
cttcagggga gctttgtgag tggttcggga gagtattcac tggtttcttc atagcgggtc 120
agtttttggc ctctttgtgt gtagtctctg aggaatgggg ctccctcgtc ggcgtaaggt 180
ttcgtcaaca ttgagggatt gtccgaatat tttgttgctt gtcgtgccg ttggaactgg 240
aatagttcgt gctggtggag cggggtgggc gggtcggggg tgcttatgaa cacagctgcc 300
tatgttggtt tgaaagggtt gacttttggt gtgtcggctt ggccgcctta tgt 353

<210> 5071
<211> 224
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C5

<400> 5071

ggtaccgggc acgaattcgc gggccgacgc aggcgtgagg cttgagcggc agagcaatgg 60
tttctgggca gccttggaaac gaggggacgt gtgacttggt tcaaaatatg tttcgggaaa 120
cgaccacagg gaatgtttct agttatcgcg agggatgttg agggctacag aatgagcaaa 180
gtgtctgctc aagtcgtctg ggtaaaaccc catagatttt ccaa 224

<210> 5072

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C7

<400> 5072

gtaccgggtca ggaattcccc ggccgaccca cgcgtcagcc cacgcgtccg caagaacagt 60
gggtgctttg taccatgtcg ttctgtcctt acaagtgaat acgttcctat ggttatctgg 120
actcattctg gcagttgtaa ctattcttca gagcctagtt atgtatagaa gctcaactat 180
agaacagaag gtgtccgcta aacaaaagtc ttcaaagaaa gaccccagaa aagaacaagg 240

agtttcaggt tgtcctttga cgtgggggtcc aagggaagca ggcattcaac tacgccattc 300
gggtcacagc tatggtttcc ttcttcatct ttgaactgat cacatacaac cggtagaagc 360
gatgggagtc gagacaagct agaaaaagga actcgcaaca agtcaaaggc caaaaataag 420
ttgttatctg ataaactgt 439

<210> 5073

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C8

<400> 5073

ggtaccgggc aggaattccc gggccgaccc acgcgtcagc gccctccata tttcacttta 60
cagacccaaa ggagacctgc tatggcctca tcgtgccact tcccaaaagg cgttttccag 120
agtctgccag gtaagtttca agtgcgttat gggcgcgagc gttcatcctc caaagtctct 180

ttatataata cttattgggg ttgaaaata aactactctc gagtggcagt aacttggata 240
 cttgctgcaa ccatgtgttc gacgcgagct cggggtcgcg ggttttgata atactgcgtg 300
 gttttgcgaa gctgaaggga tagaacgtga tttaggcaaa gttggcgggtg gtgcagcaag 360
 ctcggggaaa acctctactg gtgtatctcg gactgtaact agaggagtga acctaagtgg 420
 agcagatttt tcggg 435

<210> 5074
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-D1
 <400> 5074

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 aaggttggca gtagaggagc gtttcgaaag gttacaagtc tgggtgtgac tatcgacact 120
 tgatagggaa tacatgggtg tggcatagga taagtttaca aaagacgcaa gtcaatcgaa 180
 tagaagctta gtggcatcaa cattgtcatc gggttggatt ctaataccat atatgagatc 240
 aatgtctttg gaaaacagcc attattaaga gcgatacggg gacgtccacg tgacgggaga 300

cccactttaa agtgtgatat tggtaagat ggaactaagc aagaagatat tgcaactacc 360
 ggattacata tggaataagc agcaactact gttttccaaa caactaccac t 411

<210> 5075
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-D10
 <400> 5075

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 acaattcctt ttctactctc caaggagtgt accaagaaaa accgtaaaca agacaactca 120
 actcaattct gccaaacgaa cgagtccttt ctgcagtaac tttgaagaat ctgaagctct 180
 gtgactgcgc acggtcacga gacttgtatg aaaagtacta gctcaagggt actactggaa 240
 caaaacaata ctgcaattca cttgttcgat ccattgcttg caagcaactt acgagtcaaa 300

cagcgactcg aagaggcacc aacgttacta ttcttgcaag aatagatata gcctagtgc 360
acaacataag tatatatattgg tatatttgca attttatttc gtcaaaagat gctatatatta 420
cttacaagga caaagtca 438

<210> 5076
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-D3

<400> 5076

gtagcgggttt agaatgtccg ggtagacca ggcgtccgt tttatctctt gtagcacaaa 60
cacaaattaa agaacaatgc gtgagggttag ttctcgacat attggtcaag cagggtgttca 120
agtagcaaac tcttgctggg aactttattg tttagagcat ggtgtcaacg ctgatggaac 180
cattgataaa aagggaaca cagcaaacga ggaagctttt ggtaccttct ttaccagac 240
aagctcggga cgatatgttc ctggtgtgt agttgtcgag gtgggggctt cgggcgtaga 300
tgaagtccgt acaggtgcct accgccatct ctatcatcca gaacaactta tttccggcaa 360
agaagatgct gcaaacaatt atgcaagagg aactatact attggaaagg aaatagtcga 420
ccttactttg gag 433

<210> 5077
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E11

<400> 5077

aattcacggc tcgacgcacg cgtcagatac aattgacgga aacatttact accaaaaata 60
ttctttctgc agccattagt attcctcctt gtgacaagga atgtaataat aatgacgaga 120
ataacaatta gaggttatcc caagtttccg ttctcttttc ttctcttttc atttggtcct 180
tgattctttc cacaattaga ttggaagggg ctaagaaata gaaaatagtt tctattccat 240
tcttcagtcg agaattggga atatgtggtt ctataccgat ataaagatga ccaagaatgg 300
ataagaac 308

<210> 5078
<211> 423
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E12

<400> 5078

gacgcacgcg tcaggctcta ggtccaactc cttgggtggt tgcttcagaa atttatccaa 60
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ttactacata cgcattcaaa catatgacca atgcaatgac gaatacaggt acctttgttg 180
gtttctatgg aggtcttact attctcgggt ggatgtatct catgttcttt atgccagaga 240
ccaaagacaa gactctggaa gaattgaatg aagtatttga aaggccgacg atggacattt 300
ttagagaaaa tgtgggccga gtgaaagaaa cttgcaatga tttgattcac atgcgttgga 360
gaaatatttg ggtcttatcc aaatagacgt gtttttcccg tttgttttga ataaagttgc 420
gta. 423

<210> 5079
<211> 443
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E7

<400> 5079

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gagtttggtt 60
gttttcttgg gagcagttgt acattcaaca tcatcaaag ccaaaggag gaaagaaaga 120
ttcttcaaag aaagaagcca caagtaaacc tgcagcagca gatgctacaa agacgacaga 180
aaagtctggt ccggaagcca agttgaaggg aactggtgca aagaaacaat aaaaagttga 240
ctatgcatgt gcagtcctgt tatgttttgt gagttctgtt tgatagtttc cagctattct 300
tttggtagtg aataaagaga aaatttttta taaaaaaaaa aaaaaaaaaa aaaaaaaga 360
aaaaaaaaa gagagaagga gaaaaaagaa aaaaagagaa gaaagaacaa gggagcaggg 420
ggaaggcaaa aaaaaagggg ggg 443

<210> 5080

<211> 428
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E9

<400> 5080

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 gaattatctc ttacacaaca caaaattctg ttccgagttt ggaatgcaat cgctttgttc 120
 ggtagagaca tgctgtttat tcgcaccgga atcagaaatg aatatgttta attccatatt 180
 tgaaagtcac caaaagaaca gagcaggcaa cgaaatcatg ttgcattata tttttcagtt 240
 gttccaattt cctcgctcat acaaaagttt atcctatctt tcacagctga atcaagctct 300
 atgtatgaaa tgtggcgtcg aacactttcg tagacaaatg ccgttttgca tgggctctct 360
 ttactggcag ctgaatgatt gttggccagt gactagttgg agtagcatag aattcagtgg 420
 tcgctgga 428

<210> 5081
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F1

<400> 5081

aggtagcggg taggaatgcc cgggtcgacc catgcgtccg agactattcc ggtggaatga 60
 ggaggcgggt aagcgttgcc gtttcgctta ttggattgcc ttcggttggt ttattggacg 120
 agccttccac aggactagat ccagactcca aacacaagct gtggcaatgt atccaacaga 180
 gaaaagaggg caaaactatt gttttaacga cacactccat ggaagaagcc gaaagactgt 240
 gtgatcgtag cggattatg gccagtgcaa ctttggaagg tgtgggtccg ccagaggaac 300
 tgaagattcg tcttggaaaa ggcttccgtc tgaatatttc ttgtccaaga agacgcgtta 360
 aacaagttct ttcgtttata gaacaacagt atgcagatgc atttttggac cattccttag 420
 cgggtaatg 429

<210> 5082
 <211> 434
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-054-Q1-E2-F10

<400> 5082

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gtggttccta gttgttagtg tttgtgtgga tgttttatgg ggaacaaaaa ctccctctgga 120
gtattttcac cggaaatgtc ttatcgtata ggaggtacta gaagtgggtc cgaaactttt 180
cgtaaccaca gtgatgcttc tttctccaac aaccaaccct ttgtagacaa tgtatatgtt 240
tttgaaactc ctcaaggagt ggcagcaaca aacaatatac cttttcactc ttcagaaaga 300
acatatcggg gacagaggtc cgttttctang gccaatcttg tcttgaagg tcagcctcca 360
agtaaccaac agctgccttc tcaacaacag gttagttgat gtatgccttg ctcccttcga 420
tagtttctga tata 434

<210> 5083

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-054-Q1-E2-F11

<400> 5083

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cgccccacgg tccgcccacg cgtccggcca tttttcttgt ggaaagcggt cgatagaaaa 120
atgccaaagag ttgttttggc gccttggtta tactcgttgg tacatatata aattatgaat 180
aaagaaaatc tccaaatagc gcaatttgag agactcaca cagagcaa at gcttaatctg 240
gtgaaagaac cttctagggg tttgtactac acagtcgaac acttgaggaa acganggata 300
cctcgtctgg ttcgcgaaca agagaaactc gacacagtta ttagtaagga ggacgacctc 360
aagatagact gtcagtttgt acaggagacg atggaaatgt ttctgcagc tgcagaaagg 420
tttgactcga ttat 434

<210> 5084

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F3

<400> 5084

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cttaacgatt agtgtggatt tttgttgcaa ggtctcttta gaagaaagga ctaggattag 120
tttatacaaa cgacagcaaa ctttgtatct tttgttcct gggtaaattt tttatcgct 180
agtgggttgt tagctaggaa aagggttggt ttagagctgt gttaccttga gaaggtagca 240
aatatccact cctcgacta gtctgtttgt gaggggttacg gcgagagagg tgggggaact 300
tttcacttgt atgttgtgtc tggtcgcctc acagtcgaat aggctctgaa cctggtgaag 360
ctatatttgag tagagagacc gatagtaaaa gagacagtc cgcaccctca tggagaaatg 420
cttcaa 426

<210> 5085

<211> 219

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F8

<400> 5085

aggtagcggc caggaattcc cgggccgacg cagcgctcag attcaacgaa cgaggaagtt 60
ccagtgcgtg aggctgtgat tggggcgctt atgcgtaagt tctgctctgg ctgccgaatt 120
ggcagctgga ggtgcggaaa aactggtgga gacaggatgt gacgaactct gcggggccca 180
atattgttat tgggaagggg gacgtatcac atccacacc 219

<210> 5086

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-G12

<400> 5086

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tgcaacatat tgcaggaatg tgaaaaattg actgtcccag agttgataat atcaacgtat 120

caaccatctg tcgaacttgt gatgggtcatg gcacttatct atagagtctc gatactaacc 180
 ttcgttcaat agatatcgca gattctaaat ggtattatgc aagtgcagat gaagatacct 240
 ccatgtcaat ctgtacagaa aatcgccaag cagatagtta actagcttcg aaacttgact 300
 tcaacatacg ttgttgagtt acgttactct cctcgatttt ccgagattcc ataatggatg 360
 atcgagcgat tggatgtgca tagagacgct gtactccaga ctcatagact cgtaccacta 420
 cgtattcac 429

<210> 5087
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H6
 <400> 5087

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 tcttggaata ggcacaggat cgacattccg tacgttgttt gctgctctcg tatttcatca 180
 attctttgaa ggatttgctg gcggtactac tgtttctgaa gccagtttg gcacttggat 240
 cactatagta atggtacgtt gctagtcgtt ggagggtcga atcggtatat ctattggtat 300
 tggatttgca cacacttatc aggaaaactc ctcggcatct ttgttaacga gaggcatttt 360
 ggatgccatc tccggtggaa ttttaataata cacaggattg gtggagttgt tgacttattg 420
 gtttacgcgc aactcgaact ttttaaga 448

<210> 5088
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H7
 <400> 5088

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 tccgcccacg cgtccggaca aagcctaata cgaaacaagg catttctcag atgaagtgga 120
 gttttgatgg aaagtatttg gcttcttgta atgaaaacac tccgcatgtc ctctggattt 180

ggaatgttct tgaaatggag gttgaagcag ttttgatatg tcagacaact attaagacaa 240
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 tatggaattc tcaaggtgct gtcagtgttc cattaccctt tcctgagttt tatccgcagt 360
 attgtacttg gcctttgcaa gagaaaggac cacttttgct tgctgacaag agccaattct 420
 gcctcgccat ggaagaa 437

<210> 5089
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H9
 <400> 5089

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 cgatgcagcc catgtacagt agcagagaaa ggtatccata ttatgacggt gaagtatatg 120
 atgacacggg tgttgttccc ccggaacga ggcccaaagg aagacgtgtc atagtagaag 180
 agccagaaga gtacggaatg ccgccagggg acagagatga tagcgaagat gacgagcaca 240
 ttggtggttg gagaagaaga gacgagcaca gcatgcagcc ttggaaccag tcaccttttg 300

aacattttga cagacttttc gaaaatccct tttctgcaat ggagagagga ggattcggtg 360
 gattatttgg taacttgaa cagtccttaa gaagactgga ggaagacttt gccaaagggtg 420
 ggggaaatgg aagtgtcat 440

<210> 5090
 <211> 361
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-A1
 <400> 5090

gtgaccgggtc aagaattacc gggtcgagcc acgcgtccgg tataattgtc tttttccgtc 60
 cgcgtcaaca acaacaggaa attcattgat ggacaaacct caagtggatc atcccacgtt 120
 ggtaaagata gacttgtctc aaggagcctt taaagtactc caagactgtg acagagattt 180
 agaatgtgat cataatacca agtttcagtt ggaacgtaat cagtatggtc ctttttcacc 240

tgggttttgg accaaagaaa atgttctgct cctccaattg gagctcgtgt caggtgtatt 300
 cataaggac aatctctaac ttttctacaa caaacgtgaa gaacatttgt ttgcgaattt 360
 a 361

<210> 5091
 <211> 237
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-A5
 <400> 5091

attccggggc gacccacgcg tcagcccacg cgtccgccac aagaagaaca agaagaagaa 60
 gagagcaatt gcagcaacag cgcttcttga agaattttct tggcggttg gacgtttgtc 120
 caaatggcct ttttgagtga agttttgtta cgaacaagaa tagcaccgag ttggcagaga 180
 aaaagacatt gtttctcctg tcgttcacat cataaagcca aatgggtatac gtttcat 237

<210> 5092
 <211> 321
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A6

<400> 5092
 attccggggc cgacccacgc gtcagctggc cttgcaactg ggagtttacg ggtctgccta 60
 ttactgcaga taactggatt cccaaggata aggatgggaa cataaagttt tccaagggtt 120
 cactatagca gacttggcac gctatggaag aagttcagaa aatgggtccc gtaaagtcca 180
 atggcggtttc caactaatcc attgtgaata agttggacct tttcaattat tgcaagaatc 240
 caacagcagt gaatcaaatt gaaatgcac cgtaatatgc aagaacagat ttgccccaat 300
 tttgttagag tcctggaatt c 321

<210> 5093
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-A7

<400> 5093

gacccaagcg tcaagccac gcngtccgcc caagcgccg cccacgcgtc cgccaaatct 60
tcgacactac gagcaattca gtgagaatgg cgacgagtag tttgttgcca aacaactcca 120
acgcccaccac tacaaagcca gttgttcgtg agtgggcgga cgaagacgac tcgtcaaaca 180
acaacaagtt accacctcgt gaggaatggg acgatgagga aggtttgaag cacgttggtg 240
aataccattt caacgatgac aacaaactgg gaataccaca aaagtatttc gagtaaagaa 300
acagactaga caagttagca agacggttgc agaaagaagg cactggaaaa agtttggcca 360
acggtaaaaa accacttcct gaaccggaac ccggtgtcac tgcagtgagt cttgacgaca 420
tttccatcga atacaaacat 440

<210> 5094

<211> 308

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B10

<400> 5094

acgcgtcagc acacgcgtcc gagccacttt tgcaacttga caattttgta gttcgaagat 60
aatggcagtt aggcaatggt tgcttggttt catatgtctt tcggctctgt taggttcaac 120
tttggtgct tctggtgcaa cgtctattta ctggttgctt cagagtaaaa cagactatac 180
ttttacagtg caaagcatag agctggctaa tctaacagac gtatacaaca gcagtgtatt 240
gggctttacc tttcttgctt ccaatgacac tgcttggaac caatcaagag ccaatgtcac 300
tggtgcac 308

<210> 5095

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B11

<400> 5095

cccggtgga cccacgcgtc agcacacgcg tccgtgttgt tggtcttttg ctttccttgg 60
aggatgcaag tcaccttgaa cttgtttgta actgggttacc atcctgaagt gggttatatgt 120

agcataaaca atctattcgt agactggaat gatgatgatg atgatgatga catttcacca 180
 agcaccctac caaatagtct ttaccgaaat gaatatttct tacagatttt cttttggcag 240
 accggagaat gttatcaact ttctctatcc aaagtcagct ttgtgtttca aaagttttgg 300
 gtttctgaac caagcattct actccgcata gaaagcccca aaaacgatat aagacaacac 360
 ttgctacgag tgtcttcttc cattagtga atggaaacag aatcactcgt atatctccaa 420
 tccattcaag atgag 435

<210> 5096
 <211> 255
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-B2
 <400> 5096

gccacgcgtc agcttaagga agaactacga aagcagctcg caacacatat caaagtcac 60
 gttggtggag tcattccata tacagactat gactttctga gaaatattgg agtcaaagta 120
 atttgtggac ctggaactcg cattccagat gcagctatgc aagtattgaa agccattgaa 180
 gaagaaccaa ccaacggtgc aagtaatggt gtggaacaaa catcgtagta taaattataa 240
 gaaaattatt tcgtt 255

<210> 5097
 <211> 452
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-B4
 <400> 5097

gggccgagcc acgcgtccaa aaggtagcga agtaaataga cgtttgaaag gcgtccagta 60
 tgaaaggaga aacgagtgtgta aactgtcca atcctccaac tcaacgaaac aacaataact 120
 gttaaaattc cattaactaa caattaggac ggaagaaccc aataatcctt aacaaaataa 180
 ggttaaggaa ggaaaaaaa tcataaagta aaggaagtgg ggtaagagaa taaagacact 240
 gcatgangat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 300

aagtaaagcc taagaanaga gtaaattagg caagcanagg catgagagaa gtataatagc 360
agaagcatgc ttgaagaaaa agaaagagat ttccagaaag gaagaaaagt cagctataga 420
gaacaagtga aggagaactc aaaaagagga ga 452

<210> 5098
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-B5
<400> 5098

gacccaagcg tcagcccacg cgtcgcgaag tattcatgga ccactgtgga aacctactcc 60
tcaagacaat agcaatacta gtcttggttg tgggtgtggag acaaagaaat cgaagaagaa 120
taagaaacaa caacattcta gtagcaattg caacaatact gctagtcatc cacaacaact 180
ttcaacgcat cttacaacta gtaatcatga tttggagtcg aatcggtttt cgggtggaaag 240
agaattgccg tcattctctg gtcagccaac ttgtactact ccaatgtata tgacacagga 300
aaccaacaga acaagaaagg aaccagaaaa tgtacaaaac tttgttcatt ggacaaaaga 360
aataactcct aacaattgtt cctcctccca atttacaatt tccaacatta caaccacaag 420
aagaagaaga agaatggaga 440

<210> 5099
<211> 240
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-B6
<400> 5099

aggggaagagc aggatataag gaagttggga ggaggtagga tgaatgtgag taagatggga 60
gtaataatag ggagtatggg aataatggga atagaataca gtagcgtata tgaatcgaag 120
gaggagataa taaggagag tagtatgagt agatatggag aaataagtag tgtaatggga 180
gtgggaataa caagttatta cagtataagg atgataaaga gggtaatagt aagtgaagga 240

<210> 5100
<211> 298
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-B8
 <400> 5100
 aattccccggg cgcacccacg cgtcagccca cgcgtccggt tactgctcac agcgactctt 60
 tctccgcacc aggttctgga actgttacta tatctggctt tgggtggatcc ggtccatttg 120
 gtttggcaat gtatggcaat tatecttctt caggagcatc acaacgattt cttttgcatc 180
 aagcaagaaa gacagccgca aatattttct aatacaaagg atgacagtgt ccataacctc 240
 aaaaaataaa tgagtacatg acagcgacaa agaacgctgt atgcaggcga tagataaa 298

<210> 5101
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-B9
 <400> 5101

ccgggtcgac ccacacgtca gaaagaagga aaaggagaag aagagagggt aggcttagaa 60
 gcagcaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga aaaagaagag 120
 aaaaaggtaa gaaagaggac cgaatcaagg taagaggtag aggagcaaga agagaagaga 180
 gaatgctggg tggagtagcg aaacaagaga agggaagtaa aaggtaagaa agaggaaagg 240
 tttagcagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat agaaatccga 300
 aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta ctgaangacg 360
 acacaggtac tcgaggagaa aggagaccca aattaaggtg agagaatgga cgat 414

<210> 5102
 <211> 375
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-C1
 <400> 5102

ttgcacatca aagtttttga acccatactt attcttggtc aagacaagtt tgcggacttg 60
 gatattcggg taaaggtcaa aggtggtgga cacaccaacc aaatctatgc catccgcca 120

gctattgcaa aaggactagt atcgtattat cagaaatagc tcgatgaagc gttgaaaagg 180
gaactcaaag atacgttgat ttcttacgat agaaccttgt tggtagcaga tcccagaaga 240
tgtgaacctt aaaagtttgg aggaagagga gccagagcac gctttcaaaa gtcctatcgt 300
taagtttgtg attgggtaca cccaggaaca atgggaggag tccttttata aagaaaattc 360
ggtgccaatc taaaa 375

<210> 5103
<211> 372
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-C12
<400> 5103

cccggctgga cccacgcgtc agcacgggaa ttttttggt tttgtgaatt ggcaaaactc 60
acaatattgt caatggcaga ccttgagaat acaggaaaaa ctaaggctac tatcgcaaaa 120
agtctcattg agaaatacta caagtctttt tgtaatgatt tggtcgagag aaacaagaga 180
aagaacgaga ttgaaagcaa gctagcagca atgaagtga gtgagggtga aaggaagaaa 240
tacagacagg agttgttgaa tagagaattg cggtttctga gagaaacgca caagagaatg 300
actgaagacc aatttgaaac cgttgacctc aatggaaagg gtgcctttgg tgaaattcct 360
ccgggtctaa aa 372

<210> 5104
<211> 298
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-C6
<400> 5104

gtaaggctcag gaattcccgg gccgaccac gcgtcagaag aactggaaca cagaagaaac 60
gtcaccaaag cgacaataga aagtctcaag aagactccta ccgaaaagtc aaggcttaca 120
ttttctggac aacttgaaga agtttatcga aggaatttaa agatattcaa cgagccgggt 180
gacagtgttg gggcacttca gtttatgaaa aattaatatc aaaacagtaa tagtgtgatt 240
gtgtgggagc tttattgtct gcttggtgtc taacctaaat agttgttggt gttgtttt 298

<210> 5105
 <211> 239
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D12

<400> 5105

accggtcagg tattcccggc tggccccacg cgtcaggatt gccactccaa gtatttgcca 60
 tagaagaaga gaagaccaag ggctggttgt ttttatctag tgctatttgg atacaaaccc 120
 tggaaagaat tggaatatgg agatattgtg ggaactggta tagctagagt attgttgtga 180
 tagcgtgttg tatcccgact cgaacaactt tacatggcaa taaaagcagt tgttcaagg 239

<210> 5106
 <211> 256
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D2

<400> 5106

gggccgagcc acgcgtcaga aacatatcag ttcgagccat tggcgaaagt tagtgaagtg 60
 cgacatgatc tgaagccagc taggaaagaa actgaaaaat atttaaaagg taaaagtttg 120
 gataaacctt tgaatttcat cacgaactcg tcgataaact tccaatgctt cttcttctgt 180
 tgagcagttc tttgcaagaa gaggaggatc ttcaaagcct atcgaataat aaaagaaaag 240
 taataaaatt gtagcc 256

<210> 5107
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-D3

<400> 5107

acgcgtcagg tctatgtcgc ctgcatttga ttcaagaaag tgttcctgaa gactatgccc 60
 aacaaacaga acaaggctgg aggcagcata tcttcatgcc catcaaagtt gtttttggct 120

atgctccgga aattcctttt tgaagacttt ttggctcatt caatttcgga taatacattt 180
 tgataagcga ccagttgggtt ggaaggctga gatgggttgtt tccatgttaa ataaagcgca 240
 acaacaaggt tgagaaaaca aatggctgca attcctagga tgtctactgt aaacgaacca 300
 gtttttgtct tacatattcc gcccatcacg gaaccaagc ccgaaccgac attntgcaaa 360
 gccgattaag aatttttgag aaaaccctaa cagttccgtt ccaatgcaga aatgaacaag 420
 tgcatacaag ttattcca 438

<210> 5108
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-D4

<400> 5108

acgcgtcagc ccaagcggtc gcggacgctt ggggccatgt ttctgaccag aagcgaatat 60
 gatagaggag taaatacttt ctgccagaa ggaagactat ttcaagttga atatgcaatg 120
 gaagcgatca agcttggttc aacagcggta ggtatacaaa cagctgaagg ttagtacttc 180
 gcggtggaaa aacgtctttc ttctacgctg ttggagccta atagtgtgga aaaacttggt 240

gaaatcgatg aacacgtggg ttgcgcaatg agtggcttaa ttgccgatgc tagaactatg 300
 atagaacatg cacgagtaga agctcaaaat catcgattta cttttgacga gccaatgcc 360
 gtagaaagct tgacgcaagc aacttgtgac ttggcacttc gtttcgggga aggtgtggaa 420
 gacgatgacg aaaggaag 439

<210> 5109
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-D5

<400> 5109

attccccggc cgaccacgc gtcaagtcaa cttgtagttt gctctgttga taacctgaaa 60
 gacttcttgg gtcagcaagt ttatgaacaa ctccagaaag tatactcgga taatgaaagc 120
 gttttgatga agttggatcc tctcgcgaag ttgttgggaa gaaatcttga acgattatgg 180

aggagcgatg ttctgtggt gccgaacct tcccagatgg atattgtttc caccagaact 240
gatacagacg agatgcaagt aacagagcgt aaaggagttg tctcagtgcg acaaggccag 300
tttgattgga tggagttctt gaaaacatat tgtaaattga cagagtctga agcaagagaa 360
tctagttatc gactaagtcc aattggaaga ccaggatttg gaaggattan actcgtactt 420
attagaagta ctcggaatca aaga 444

<210> 5110
<211> 377
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-D7
<400> 5110

gaattccggg ccgacccacg cgtcagattc tctctcttca cttgagggaa attgttttgt 60
at ttggcaat gtttcgacgg ttactgaagt acttgactgc aaatattctc gcaagacatt 120
gttcaaagag tgcggaagtg acgttaaaag ttgaaaggcc tcagtttaac ttttctttga 180
gcatcaatgg gagaaataac ttgtatgctg actctgtttg tgtgggaact tggcaaataga 240
atacttcgct-gctgcagaaa-acaagaacaa-aaatttggtt-tgaattgtac-agtatgccgt 300
caaagaacgt tcgtaacaac ttgcgtcatt tctcggagca agttggttca gggatgccgt 360
caagatttgc cactgga 377

<210> 5111
<211> 346
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-D9
<400> 5111

cccacgcgtc agccgcagta gaaaatacat gggaatatcc aaaggcatcc aaggtaacca 60
aggaacttcc tggaaaaaac ttggtttttc cccggtcaag gggaaaatta cgtttgcca 120
acggaccaaa gaccctccag aacgggtgga tgcctccttt ggcaaagcag aataccatca 180
acctccaact aatgaacaag ccgatgcctg aatgaaactt tttgaatttt ggtaattaa 240
at ttggttgt ttgctttgaa tgtgccaaaga attgtcccggt ttcttggtgg aattcaactc 300

gtacacacac acatacatat atatatgaat gaaaaatgct gcaagg

346

<210> 5112

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E10

<400> 5112

cccggtgga ccacgcgtc agcagacgcg tgggcggacg cttgggaaga ggaggaggag 60
gattggtgga gatctgagga gacaagagat ggattttacg actgctcgag tcagtgttgg 120
ttttgtatct ctttcttttag agcctacgac atggacaagt ggatcatcca agctatttcg 180
taaaaatgct agtcgttcac agttttattcc ccaaagaacg ttgtgtcctt gttcgcactc 240
tcgtcactct agatatagta aacacttcaa gactgttttg gaagccaaac ttcgtgtagc 300
tgtagttgga ggtggtcctg gtggttcttc tgctgccgag aactggcaa aggctggaat 360
agaaacgtac atttttgaaa ggaagtggga caatgcaaag ctttgtggag gtgccattcc 420
t 421

<210> 5113

<211> 438

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E12

<400> 5113

accggtcagg aattcccggc tggccccacg cgtcagcatg aagttttgga aagatttttg 60
ggctggtggc tttcctggag gagaagctta tttgaaggag gtgatagaga gtaactttca 120
aaagccagtt ccaggactcg atactagtgg agtaacggga caaggggaag aaaagaaagc 180
agttggcaac cgaacacagc agcctgcaa agcttcttcg ggaaaagact ccaaccctcc 240
ttcttccaat aatggcactg gcaacttggc aaggtgtggg caaggtcctc caataacaaa 300
accggtcaaa aggagaagtc gtttggaagt cgtaccagag gaatagacaa taacttactt 360
agttggtatt gtgtacctgt tggcttctcc tcgtattggt ttgggaattc caatanaaca 420

ccaacatttt ttctttcc

438

<210> 5114

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E2

<400> 5114

acgcgtcagc ccaagcgctcc gcaacgactt tgtgaaaaga ttggattttc tgttgctggt 60

cattatTTTT cgcacgtctg caagttcgag gcaaagttgt acactcttat ggaacaacgt 120

tctttgcct tgaagttggg tttcctaagt ggaagtgtta tggcagaagc catcattccg 180

ggtattatag aaaagaaact ggtggatcct tcttctgtta ctgtctatga cgtagttgag 240

tctcgtctgg atcnttttca gaaaatggga gtanggacct gtaaaaacag ttttgagata 300

ttgcatgctg acgtcatcgt tttagcagta aagcctgatg tagtctctga agctctcaag 360

tcccataaag acggatggan nacagaaaaa caccttctag tttccatttg cgcaggagtg 420

tcgattggga caatag 436

<210> 5115

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-E3

<400> 5115

cacgcgtcag cggaagcgtg ggaaagtgt gaaagagtct gtaaagaggc ttttttttcg 60

tggttcgatg ggtggattgt acaatatttt ttgacaatga aaaaaaatat tgtacatcta 120

ctgaaatgca agaacatgag gaagaaagag gcaaatacgg gaaagcagta aaagaagaaa 180

gagaaaggaa aaaactgagt atcaggaaga aaagagggag tagatgagga aagaaagata 240

aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc acgaaagtat ttgaagaaga 300

gagtgtaaag cgcgtacctt ttgcataatg tncagcgag tgaaagaggg aagcaaaaag 360

aaggaaaagg aagtaccag gtaagaccg aagctagttg atcttatgct gtccaagcga 420

agtaaggctg aaccagtatc tgt

443

<210> 5116
<211> 436
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E4

<400> 5116

cacgcgtcag gaagattgat agatatcttc attcattaca gacgggacga gttgctgccc 60
acaaagcttt agaacaatat gtggaacgtc gttgtagctt atccaaacta gtaagctcgt 120
tggaatgttg ctttctggag cgaagtcac cagaagggtc caaaatgggc accatcttct 180
cccaagtagc acaatccttt gcaaaggata tgttctatcc caaagatact acttaggtcg 240
caaggtgaag aatggctaga tgctgtgttg caagattatt cattccttgc tcgtgacgcc 300
cgacgggttt taggtgaacg tgtacaagca tacgaatctt atgaaaagg cctatcagaa 360
cacaatgaaa ggatgccaac aacgggagaa tggcatagtg tccacctcca cgtcctcgca 420
tcagactgaa aacccc 436

<210> 5117
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E5

<400> 5117

gaccacgcg tcagcccacg cgtccgtccc tttcaccaa tcctcgtgag cattgttttg 60
tgctcgttcg ttttcaatgg ccttttgtat ttttgttta caaagctcaa aacttgtgtc 120
gtcgagagct caaaccagtg ttcgaacata tcagttatct agtaagaaca cagttcgggt 180
gtttaccggg aaggtaacttg tggggaggac ttgtcgaagg ctttcaaaat ggttgtagc 240
cagtgtgac agtgaaagca ctgtaaacca atgcgtttct gaagaagaaa aaatagttaa 300
agaagtgact gaagtaattt ctggagttga tatcaacgtt agattgactt cgctaggcgg 360
tcgaagacgc agaatctcgg gtggtcttga tatcgaagct ccagtgaaac gcgtctggga 420
agttatgacc gactatg 437

<210> 5118
 <211> 371
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-E7

<400> 5118

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 attcttggtg cagatatgac aggtcctggt aaaagtggta aaggtttaag aaaaggaagt 120
 tcaaagcgctc atcgcaaagt cttgcgagac aatatccaag gaataaccaa accagctatc 180
 cgtcgtttgg cgagaagagg tggagtgaac cgaatctcag gacttatcta tgaagaaaca 240
 cgaaatgtcc ttcgtgtttt cttggaaagt gttattcgtg atgcagttac ttatacggag 300
 catgctcgctc gcaagacggt aactgctatg gatgtcgtat atgctctgan acgtcaaggc 360
 cggcaccttt a 371

<210> 5119
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-E9

<400> 5119

 cccggctgga cccacgcgtc aggagaaaag aaaaagaaat gaggaggagta gtacaaggag 60
 cgaagatgat gggagcagga atggcaacga taggttttagc aagagtacga gcaggagtgg 120
 gaatagtatt tggaagtttg gtgaatgcat atgcaaggaa cccagtattg aagcagcagt 180
 tatttgata cagcatatta gggtttgcgt taacagaggc agtaggactg tttgcattga 240
 tgatgagttt ttttgaaacg gtttcatagt ataggagaaa caagaagtag aagagaaata 300
 caagagacag aagaggagtt atgagagaaa agatggaagt aatagaagtg gtaagtggag 360
 taataatgaa tcatatgaaa gaaggaatgg agaataaac gaacgattac atgaacgacg 420
 agataatagg agaaat 436

<210> 5120
 <211> 438

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-F1
 <400> 5120
 cacgcgtcag cccaagcgctc cgcgacgcg tgggcgacga ttttttcac gccgtaagag 60
 cgcgccacaa tgccgactcg aaagctgtac gtccgtaatg tttccaagca tgctactaag 120
 agagacttgg aagacctgtt ttccaaatat ggaagagtaa gggatgttcg gttgttaact 180
 gactaagctt ttgttgagat gggcgacgaa agagacgccg aagacgctcg ctattaactg 240
 gaagggaaga gaatggaaag gtaacgttta aaaagttgag tttgcaaaaa acgagagagc 300
 tcccccaagg caaccaaagt gctaacaact gccgggtttac tgggtcactt tgctagggag 360
 tgtcccaatg gttactggag taaccgttgt taccgctgcg gggaaaaggg gcatacacia 420
 aaggattgta cggtcctt 438

<210> 5121
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-F10

<400> 5121
 ccacgcgtca gcagacgcgt gggcggaat attttcaatg agaaacgagc cgcttggaag 60
 gctttgttct cagaagtttt cactgagaga caagcacctt ttctatcgta ttttccttag 120
 gtactctact acctcccatc ataaactgca gcacgaacga gttgtgttat tgcacggctt 180
 tctaggtttt ccgatatcag gtattattca agtatccagc aatatgtgtt tacagtttgt 240
 gaaattgtaa ctcatctttt ttatttatac agttatcacc tttagctact ttactaaaaa 300
 gaaaggggtt ttcagtttcg aactttggat acccttcaag agacgacttt atctcgggtc 360
 atgcccataa cttggtcgat gccttgaata gtttagcggt aagagacacc tgcaagtttc 420
 ac 422

<210> 5122
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-F2

<400> 5122

acgcgtcagg aacaacaatt ggtgcctcat acttggtaca agtattattc tgtacccaag 60
 ttatttgaaa agtgctatcc tcagtatgca acaacggaga aatgtgtaga gtatgagtat 120
 gttccatatt ccacttctac accttatcca tcggtatctc caagttatac tccttcagca 180
 tatcaaacia cttctgctta ttaaagagcc gaagactgga tagatttttg aagtgtctcg 240
 tgttcaaaga aaacatgaga cataagaaaa agtaaaggat ttggttttat gtataaaaaa 300
 aaaaaanaaa aaaaaaaaaa aaaaaaaaaa acaacacaaa accaccacac ccc 353

<210> 5123
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-F3

<400> 5123

gcgtcagctt aacggctttg gcacgtaact tttccaatgt ctgtctctcg aggagtggtc 60
 tgagaggggg atgtttacga aatgtgaaag ttttcaacca caaacgacct gcaaggttgt 120
 tatctacgaa aatgagaaga ggcgaccatg aaaggagaga acttagtcgt cctatgcgta 180
 cgcttgattc cgctttcgat gaacttttag cttttgcgca ggatccctgg tccatgtttc 240
 gctctccatg gagtctgtct cccaaaaagt atggcagtag acacgtggat gcctcgtggt 300
 gacttggtgg agaaggaaga tggcttttat gcatacgtgg aactgccacg gcctagccca 360
 aaagacctta aaggtcgaat ttagaggaga cgttgttact atttctggag aaaagaagga 420
 tgaa 424

<210> 5124
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-F4

<400> 5124

gggtcgagcc acgcgtcagg cgcaagttat gttgggtgtc gatattctcc gtctgcagtt 60
 ggaaaaactg caacactttt tagcactagt ggatacgaaa ccctcaatgt ctatagtatt 120
 tttggcggtt aatggatgga tacttttggt ttttaatagt tttggtcttt cctggatact 180
 ccttgcgcct ttcagaaaac tagacctcat ccaacgttct gattggtcgt cacgagtcgt 240
 ttccaacttc aacgcttttg ttggctgttt actgtttgca aagtttgtgt ttggagaaga 300
 actgctctat cggacgggag tcttttctta cagcgcagct tgttgtggcc tctggaaatt 360
 aattcttga tacttttttt atgatagttt gttgattatt ttggtatttg aagttcacga 420
 naccataaat attcaaacca tta 443

<210> 5125
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-F6
 <400> 5125

aattcccggg ccgaccacg cgtcagccca cgcgtccgga tgagcgggga agccttggcg 60
 gagaagctta aaaaccttcc tttggaagac caatttcaag cagagtatgt ctggttagac 120
 ggtaattttc acccaagatc caagggaaga actttaaatc tgagggactt cggtgccgcc 180
 cctcaciaag ccctgcttc tgcatttctt gagtggaaact atgacggctc cagtactggt 240
 caggctgaag gccacttttc agaagtcatc ataaagccct gtgctgttta tctgtatcct 300
 tttcgtggcg gcaataacgt actcgtcctt tgtgacacat actggcccga tgggtactcct 360
 catcctacca atactcgaca tcattgtcca gaagtgatgg aagcagcaaa ggatctggag 420
 ccttggtttg gagtgggaaca agaatacttt 450

<210> 5126
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-G10
 <400> 5126

cctggaatac atccaacatt ttattcaaga taaaaaaccc aacttgctgc cattcgtctt 60

ggctaaacga atcaaagctt gtcgtagctt gggatccatc cccacatact tacagaactc 120
 cgtgatcact tgtgaatgca gagcaatcgc ttttcctcgt atcctgttaa acctatcctt 180
 gcccaagacc catcgcgta cgtatacaat aggagtgaag ggaccaaagt cggaaacctt 240
 tcccatgtaa aactcaatc ctagtcttct aactctgctg tcaactaaatg aagcaaactc 300
 attgcttctc agtctatagg agcaacaatt tgaacaaaa agagaggaac ca 352

<210> 5127
 <211> 207
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-G12

<400> 5127
 agtaaataag atgcatggaa caaaaacaaa cgaaaaaat catagcatca acacatacgg 60
 atacttaaac cgtcaaaact aactcattaa gtcacagacg ttttcatact acgtcgggat 120
 ccttgccgca tctttctagt ttgcgtttgt ccaatctcgc aattacattc gttccattga 180
 tatcaggtcc agttgggttaa tcccgt 207

<210> 5128
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-G2

<400> 5128
 acgcgtcagc ggaagcgtgg gcggacgcgt ggggccaaag gtctcagaag ttcaaggctt 60
 taagatagtt gcaggctctg atattgacaa gataataagt ttggttgctc aagtggagag 120
 tcaactcagac catccttatg caaatgctat tggttcgttac gcggaagaaa ctcgagggtt 180
 gcatgtttca aagcaagtcc aatcttttga agaaataccg gggttggttg tgcaatcgat 240
 cgtctccaat catgaaatat tcataggaaa cttgaaatgg atcatctcca aatgcggtac 300
 ctcacaagaa cccacanagg attggttggg taaggaatat ttagaacagc tacagagttg 360
 gatgaagaac ggaagtactg tcgtggttagc tgccatagac gatactcctt gcattgcatt 420

tcgcgtcgat gatgag

436

<210> 5129

<211> 365

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-G6

<400> 5129

gacccaagcg tcaggggaaa gttagacttc cccaaagttt tatcgcaagt acaagacatc 60
gttcgacaac gtttcttcgg agacagtaca aacgggggtct atagtcttgg tgtacaaaaa 120
accctgtttg acattgggtgc gcagattctt atgtcttgtc cgctcttggg gaacgtatcc 180
ctaagtatgc caaacattca ctatttacct gccaatntag aagtgttttc gaagaatggg 240
gttcgatttg agaacgatgt ttacattcca acggatgagc ctcatggcac tattaaggca 300
acgttgtcaa ggtcttgctt tgcaaaattg taaaggtgat tcttgctttt gaaaaaaaaac 360
aaaaa 365

<210> 5130

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-G7

<400> 5130

aattcccggg ccgaccacg cgtcagccca cgcgctccgca accaactacc accaaaagta 60
gcaactgcaa ggaagaacag agtgtcctaa agaatagcaa gttgtgatga ggagaattgg 120
tagcaaactc ttgtcttatt ccggcaatga agtaaaactt cgggatgttg tttcttctct 180
aaggagagac agtaaagcga cgggggtcttc catccggagt tggcttcgtg atatcaacca 240
gtggtatgaa gacacttact ataaaaaggg aaaggtggat cctttggtac attatatgtt 300
actttgtttt ggagtgggat ataccatcaa ttactcccat atcaaacata aagtggagca 360
taagaatgac gatatcgaaa gccttgtaaa ggtcaccttg tgggtgtgtg gtgatggctg 420
acgcatagtt ggtgatatag gaaggtttcc ttctt 455

<210> 5131

<211> 429
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-H11

 <400> 5131

 ccacgcgtca ggacggaaac gcagtggacg ttggagtcgc ctcaagatgt agaaaacttg 60
 ctcagcaaca caaaactgta tccaccacaa ccaagttgca agctttcttt ccattacaag 120
 ccttcggacg aacagtggga taaaattttg gaaaaggttt tcaggtactt gtccaacgat 180
 ggaacgctcc aactggagtt gtgtcaagga gtagacaacg cgggtgctcct aaagacggaa 240
 ctcaaacttt gtgggtttta ggacattgtg gtggaagata gttccgtgga gaagaaaaca 300
 gtgtggaccg caaggaaacc caactgtgac tttggtgttt ccatgaatat tggaaactcc 360
 accacagctt ctacgcacag cggtggaac actaggacca acaatgaaac cgtgcaatta 420
 tggacacag 429

<210> 5132
 <211> 452
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-H6

 <400> 5132

 attccgggcc gaccacgcg tcaggagaat acgtcgtttg aacgaacaag gagaagaaga 60
 agacaaagaa gacgaacaag aagaaatgca aagtgaagag ttgacaagga gttgttcgga 120
 atttcttctt tcgtattctt ccgaaatggg agactgtata acctcattga gcgatgacga 180
 cgaagagaaa gagtcgttcg tggcttctcg acttggacaa aaactgggaa agatgctgga 240
 tagttatgcc tcgcattgta gtggaaaaaa taagactttg ttgtttcgtc atgttccgga 300
 cgacacacca acgaagcatt ggcttatcga caagttcaag ttaccaacga gaaccttacg 360
 ggttaccttg tcaactggag tttgtccaaa aaacgaagaa taagagtttt gcataccaaa 420
 acacgctgtc caagtggctt cccgtcttga aa 452

<210> 5133
 <211> 454
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-H7

<400> 5133

gaagtcccg gccgaccac acgtcaggta caacacttgc atttcttgca caaaaagtgc 60
cagaattcga gaaaacgtta agtgacgagg atgaaagatt aggagcaca attgttggtc 120
gagccttgga agcaccgctc gttcaaattg cgacaaacgc tggaaaagaa ggctatgtgg 180
ttcttaatga ggtacgtaaa aaggaactcg gctggggatg gaatgcggca accgatgagt 240
acgtcaactt ttatgatgcc ggaatcgtag atcctgccaa ggttgtttgt tgggcgttgg 300
agaatgcagc gtccattgct tctatggtac taactacgga agctttggtc gttgaaattc 360
ctgagaagac aaagaatacg tccttcgggt gaaaatggaa tgggagattt tacaggagaa 420
agctacatgt aaaagtagcg ccatattcta aaat 454

<210> 5134

<211> 306

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-H8

<400> 5134

taccggtcta gaattcncgg gccgaccac gcgtcagggt acaggaagag atggaacgat 60
tcggtcgctt tttatcacgg aaaacagaat atagagacga tgtgagtttg gataaagtgg 120
atgtgaatat gtggaaagca caacaacgag agcgttggtt ttttgggaga gagttttcgg 180
cacaagagga taggctggaa gacgaccaa aagggaaatga ggangaagac gacaaggacg 240
atggcggtga tgtggactat aaaaacttgc aacgacttgt gaaataaaat ttttttggtt 300
gtgcac 306

<210> 5135

<211> 221

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A10

<400> 5135

cacgcgtcag atctatTTTT ccaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaagaaaaa aaaaaaagg gggccgcccc aaaggatggc aacccacact acccgtccaa 180
 ggaacgtcaa agccctccaa aagggccacc taactccaat t 221

<210> 5136
 <211> 71
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-A11
 <400> 5136

aaaagggtcc aagcttaagt acgcttgcat gcaacttcat agctcttcaa tagtgtcacc 60
 taacttcaat t 71

<210> 5137
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A2

<400> 5137

aattccggga tcaccacggg cccgagaagg aaggtagctc agtgtattgt tggaggaagt 60
 ggaaagaaag ctattggagg tgatttagaa ggtggctatt acattgaacc gacgatattc 120
 aaggagata acaagatgag aatattccaa gaagaaatat ttgggccagt tctgagtgtc 180
 acgactttcc gtacagaaga agaagccatc caaattgcc aacgatacttc gtatgggttta 240
 ggtgctggtc tgtggactcg agatattatg aaagcttacc gcgtatctcg agcaatcaag 300
 gctggtcgtg tttgggttaa ctgctatcat gaggatcctt ctcagcggc gtttgggtgt 360
 tataagaagt cacggtttgg tcgtgaatgc cacaagttga ctttggagca ctaccaacaa 420
 ttgaacaaca tta 433

<210> 5138
 <211> 228
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A7

<400> 5138

taccggtcta gaattcccg ggcgaccac gcgtccaata gtcccgccat cgtatatact 60
actgtccaat gctacctcaa gtttagcttcc gatcgagtag agcaaggaat aagttttggc 120
tccaacctgg actttaaata tgcggcaaaa cttgtccgtg gtgcttatat ggtgtttgaa 180
cgtcgagtgg cagctgagaa aggttatgct tcacgcgttt ttgaccgt 228

<210> 5139

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B10

<400> 5139

ggtcaggaat taccgggccc gccacgcgt cagattggct taggaatggt tgccgctgca 60
aaactggctg gtccttctcg tctgatecgt ttggattgta tggattcaag actagatatt 120
gcgagagagt gtggggcaga catagtattg aatcctctta aaacaaacgt cgtaaaggat 180
attcaagaac ttacggatgg atatggatgc gatgtttatt tggaagctac tggaaatcct 240
aagagcggtg aacaaggctc ctatatgatt cgcaagaatg gaagatttgt agagtttagt 300
gtattcaaag acaagactgc tgtggattgg acgattattg gagacacaaa ggagttggat 360
atactaggag cacattgcag tggagataat ggatataaag tagctattga tatgactctc 420
cgtcgcctaaa ttcctgtgga gcgtattg 448

<210> 5140

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B12

<400> 5140

gtcaggaatt accggctcga gccacgcgtc agcccaagcg tccgacaaag tgtcgtttac 60
aaaagaaagt atcacatatt ccctcgtatt gtgtgaggat gagttggggt gcaacttta 120
aatcttccaa aatagaaggc tcctctgcta ttccagaagg tgaacagcct gacctccata 180

caaagtggga gcagtgttta caagagaaag ggtcaccaga gtgccaacag tgtcaagggt 240
caggacaaat accatgtcct gcatgtgaag gaaagggta tttcgtgatg gaagttttca 300
atgttacctc tagtaaccag tgtcaagttt gccgtggaca ccgtaaaact ccttgcccaa 360
cttgtaaaga atacatttat cgggcagtaa aagatttatg atataaagtt aaactcaatc 420
tttacaaatg gaaatattgc ctccagtaac 450

<210> 5141
<211> 388
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-B5
<400> 5141

acatgcaagt aggtaaagcg aacgggtgag taaagagggtg tgaaagagtg gaagaacatg 60
aaagcacaga agaatgtaag aaatggtttag agtaaaaacc ataaaggaag taaaagcggg 120
aatctgagag gaggaaagcc acattggaac tgagaaaagg tccaaacaag ggagtagatg 180
aggaaagaaa gatcaaggaa gtaagagtaa gagaaggagt aatgtgaatg aaagcaggaa 240
agtatTTTgaa gaagagagtg taaagcgcgT acctTTTgca taatgtccca gcgagtgaaa 300
gaggaagcaa aaagaaagaa aaagaagtag ccaggtaaga cccgaagcta gttgatctta 360
tgctgtccaa gccaaagtaag gctgaacc 388

<210> 5142
<211> 421
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-C10
<400> 5142

acgcgtcagc ccaagcgTcc gggctgaaaa gacacgcttt gtttggttg actttattcg 60
agttcctcgt tgcgaagag cagcagtcta cggcattctt attatgatcg ttcaacagtt 120
ttcaggaatc aattctatca attattatat gggaagtttg atgaaggaaa ctggattatc 180
cgcccagaat gcagtctata ctagtatgat tgggtggtggc acaggattcc tttcaactat 240
tcttgcaata tatctgatgg accgactggg acgtcgacca ctgttactta ctctcattgg 300

eggagtcgtg gcaggtttat ttattggttg cttttcattc cttgcttcca atattcacac 360
 caaggaacgt atctatatattt gggggcggttgc tcatctatta tcttttctgg ggttctgctc 420
 t 421

<210> 5143
 <211> 432
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-C11
 <400> 5143

acgcgtcaga ggaactcgaa tggtagagaga actgtttcaa atggcacgttccaagaaagc 60
 ttgtattata ttttttgacg aaatcgatgc catcggaggt gctcgttttg atgatggcgc 120
 tggaggagat aatgaagtgc aacgtacaat gttggaaatt gtcaatcaat tggatggatt 180
 cgatgcacgt ggaaacatca aagtgttgat ggcaaccaat cgtccagaca ccttagaccc 240
 tgctttgatg agacctggta gattggatcg aaaaatagaa tttggtttgc cagatttaga 300
 aggaagaacg catatctttc gtattcatgc aaaaagtatg aattgtgaac gcggaattcg 360
 ctttgaacta ttggetegtt tatgtcttcaa cacaacaggt gcagacatac gaagtgtttg 420
 tacagaagct gg 432

<210> 5144
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-C12
 <400> 5144

acgcgtcagc ccaagcgtcc gatatttgat aaaatcgatg tgaacggtcc caacgcatcg 60
 ccagtttatt cttatttgaa acgtgcctct cataccggcg atattgaatg gaattatgtc 120
 aagttcctgg tgagtccgca aggtaagggt ttacgttttg caccttggac agatcccctg 180
 caactggaac cacatatccg agcttggttg ggttttactg aataatctat cgtgtgttcc 240
 gtatctcttg ttatgaaagt cgcgtcattc taaacgtgtt tcttcacgca agacacgact 300
 ggatttcaaa agagataaat aaatattatt taccattcca aaaaaaaaaa caatacac 358

<210> 5145
<211> 298
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C6

<400> 5145

aagtttgggt gttttcttgg tagcagttgt acattcaaca tcatcaaag ccaaagggag 60
gaaagaaaga ttcttcaaag aaagaagcca caagtaaacc tgcagcagca gatgctacaa 120
agacgacaga aaagtctggg ccggaagcca agttgaaggg aactgggtgca aagaaacaat 180
aaaaagttga ctatgcatgt tcctgttatg ttttgtgagt tctgtttgat agtttccagc 240
tattcttttg gtagtgaata aagagaaaat tttttatatt tacaaaaagt acaaaggg 298

<210> 5146
<211> 428
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-C9

<400> 5146

acgcgtacgg tttagtctac tcacgaaaag tattgcacca gttactaaaa gcattttggt 60
atccacagta aagtataata gtcctttgca gctgagtaaa gcagagatat ggagagcttc 120
ttatccaact ggaagcagac gttcctttgc agaacaaaag gcacagcagc agtccaaaga 180
agggtgaagaa ccaataacgc cttatcaacc tgtgacggag aagctggata aaagagaccc 240
aaactatcct tggaagtgga gaagttttct tccagaacat acctataaac ccaacctcaa 300
tatcaatctg gaaaggcatc atacaccttt agattttaga gatagagtag ctcggggaat 360
cgtcaagttt ttaagatttt ttgcagatgc ctttttttca gaaacgatac ggacaccgcg 420
ctgttggtg 428

<210> 5147
<211> 316
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D1

<400> 5147

attcgcggta cgacccacgg gcccggtgtt gtgtaaggca ttcctccaga ctgggacgat 60
gccatgttgg ccaatttgtt tcttcctttt ggcaaattgc tatcttccaa tgtgtttatt 120
gataagcgta cgcagagaag taaaggattc ggatttgtga gttatgctta tcttgattcg 180
gcacatatgg caattgttat gttgaatgga atgactttac caaatggcag aacgctaaaa 240
gtttccttga agaaggataa aaacgaaaat ccaagcgaat aaatgaaaat ttcttctttt 300
gggaaaaaaaa aagcac 316

<210> 5148

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D10

<400> 5148

acgcgtcagt tcgaacatac attgatgctg tgcattttct gaaaaagaag aaaggccgcc 60
tctccaactc aacggactgt atggacacca ctatgacta ctatcatatc agttctgaca 120
cttccgaaaa tgccttgtat tattttgaga gagaaaggat cattcgagag atatcccaag 180
atcctttttt gtacgacaag ctgagtcggt ccatagcacc atctatatat ggacatgaag 240
acttgaagaa aggtcttttg ttacagcttt ttggaggaac cagcaaagat ttttctatca 300
gtggaggtgg ccattttcgc agtgacatac atattcttct tgcgggagat ccaggaacaa 360
gcataagctt gtttcgtcag tatgttcaca ggattgcccc tcgtggtctc tatacttctg 420
gcagacgct 429

<210> 5149

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D11

<400> 5149

cacgcgtcag attcgaggag agagacagac agatggccaa cgctggtcaa gatggccttg 60
tgcaagtcaa caaacataga aaagtaaaga gattgcaaga agataatatt ttgaatagag 120

cactatcaca accaggagat gtatttctgt gcttttgcaa catccagttg ttggtgaatg 180
cagaaagagc tattatagga aatattactt gtccagaaag tatcgaattg tgcgtctat 240
tagctggaca tatagcgggt ttggttcgatg aacatttgga tgactttcgt ttggaagcta 300
tcttgggagc actatttgtgt acttggttatt gtgagtggaa gcgttttgaa cgagaattgg 360
gggtacaaga atggaatgaa ttggggaaga tatcttcctt agatacttgg aagcttgtgc 420
ttggtacaag a 431

<210> 5150
<211> 228
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-D3
<400> 5150

attccccgat cgaccacgc gcccgacttg ggggcattct tactcaggaa agaaacgtta 60
tgacaccgtg gagaaggaca cagagaagga accaagtata ttgagatac atgatctgtc 120
caagaaacag agtggcagcc aataagaaga gagtttgtga gttttcaata caatactgtg 180
cttgttgcta taattttcca taaatgattg tacatgctgt tttgttgg 228

<210> 5151
<211> 447
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-D7
<400> 5151

acaaattaag gtgagagaat ggacgataag gaactaggca aaaggatatg gtatctgcgg 60
tagaacatat gaaagaagca gcaccgactg tttagcaaaa acacagcact ctgcagaaaa 120
gagaaaatgt aaagtataga gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa 180
gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaacggtaa ggatccaaag 240
gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga aaggagaaac gagtgtagca 300
ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt aaactagcag 360
taggacggaa agaccccata attcttgact agataggttt agggaggaga gagaatcatg 420

aagtagagga cgtggggtaa gagatga

447

<210> 5152

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-E10

<400> 5152

cacgcgtcag agcgggtggtc ggcttttttac gacgacgacg acatgggtggt tgcttctctgt 60
cgaaaccttt ttgtactaga gttgaagaac aaggaaaact tatagtatcc gaaaccgaag 120
atgatacccg attagatcgt ttcttgagac gccgtattgg tagattgcct cagtctttat 180
tagaaaaata tatccgaaga ggagttgtaa agatagatgg gcaagtagta aagaaagctg 240
gggaaagagt tcgttcttct tccgtgggtgt atattcctag acaactagaa agcttggagg 300
aaacaacagg ggacgacaat gtggagagta gtcgcctcca tcagggggat ggcgctatga 360
tgatggacag aaaggaaaca accttgtcta cccaagtaac aaatagagta cagagttggg 420
tgctttaca 429

<210> 5153

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-056-Q1-E1-E11

<400> 5153

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tcgatcctgt gttcgtcgac ttttgtgtgt ctcttgaaat ggcttccaat cttcaaacag 120
acggcaccaa cgttcccact tttaaaatta tcttggtagg agacggtgga gtttgtaaaa 180
caacttttgt gaagcgacat ctttctggag aattcgaaaa gaaatatatt gccactgtag 240
gtgtggaagt acacctctt aaatttcata ccaatcgagg ccctatcgtt ttcaacgtgt 300
gggacactgc tggtaagaa aagtttggag gtttgagga tggctactat attcaaggac 360
agggtgctat tattatgtnt gatgtcactt ctagaatcac ttataagaac gttgccaact 420

ggcatcg

427

<210> 5154
<211> 431
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-E12

<400> 5154

acgcgtcagc ggaagcgtgg gttaaagttg gatgctgaga gttttttggt ccctgtgcat 60
agtaattcag gaattgggtg gtggagaaca agtttccgtt tatccgaaga aatatataca 120
acttgcgacg gtggcgattt tcacatgcc a ttgcacttt gtctcagtgg aaatgctcac 180
tgttttgctt ggatcaatca gttgcagatt gctcgttatg tggcaaagt tgggccacaa 240
aatgtatttt atattccatg tggcttgctg tatagaaacg aagaaaatgt cttgacaatt 300
atgtattata cagagcatga aagtgcccaa gttggtgttc gaataactcc ttactttgtg 360
gatagcaaaa cggggaactg gaaaactcac gacgaactgc agacaacgga tgttgttgga 420
cctttcgcaa c 431

<210> 5155
<211> 290
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-056-Q1-E1-F1

<400> 5155

attcncggga cgaccacagg gtccgcccac gcgtcagcgg acgcgtggga aagccaactt 60
atagttttac tccctgaata tagcttgaaa acaatcaata actgttcata ttcctgagta 120
tgtcttctgt ctatccaaaa tgttgcgctg cgaatcttta tgactggaga ttatcgctt 180
tctgaaacat tttttagtta tgttggtattg ttaagcatcg ttcgtatctg ataggctatt 240
tctgaaaggt tttcagtagt gtaataaaca agaaatgaac taaaacaaag 290

<210> 5156
<211> 450
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-056-Q1-E1-F11

<400> 5156

ggtcaggaat taccgggccg agccacgcgt cagcccaagc gtccggtcag gtatctccaa 60
atttgtgcaa cggttcaag aagtcttttg tcaaaggaat cgaaagggt ttgccgatat 120
ttgcacgcta cgaaagtctc tcaggcgtct aatgtgatgt gccgagatgc ccttaacagt 180
gcgcttgatg aagaacttga acgagacgaa agagtttgta ttattggaga agaagtagga 240
cagtaccaag gcgcctacaa agttactcgt ggcttgatg aaaaatatgg ttcaaggaga 300
atagttgata ctctatatc cgagatgggt ttcaccggtt tggctgtang agctgcattc 360
aacggactaa gacctgttg tgagtttatg acctttaact ttgcaatgca ggcgatcgac 420
cagatcatca actcggctgc aaagacatat 450

<210> 5157

<211> 284

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-056-Q1-E1-F4

<400> 5157

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agagaaagga aaaaactgag tatcaggaag aaaagaggga gtagatgagg aaagaaagat 120
caaggaagta agagtaagag aaggagtaat gtgaatgaaa gcaggaaagt atttgaagaa 180
gagagtgtaa agcgcgtacc ttttgcataa tgtcccagcg agtgaaagag gaagcacaaa 240
gaaagaagaa gaagtagcca ggtaagaccc gaagctagtt gaat 284

<210> 5158

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-F6

<400> 5158

agtaccggtc tagaattccc gggccgacac acgcgtccgc ccacgcgtcc gccacgcgt 60

ccggccaagg caggttttgc tcgaagctgc acacttggga ttgctggag gcaagttgta 120
gcacctttgg tagttttctc attacttttc gttagttttg gaaaacgggt cgatgttcta 180
aaacagaaac gtgtccttta aggcataaaa tgtgctgact gaggaacaga agctgatagt 240
ttatgctggca ctgtgaaaag tccaaaatac acatatcttg tattgaaacg aatcatatag 300
tttttgtgac agcttccgca gtcagttttc taaaggaacg aaagaatgaa aatgtttcgt 360
aattaaaatt catgagatat tgatacattt agtaatacga taaaatcaaa cttctgggtcc 420
ctgtc 425

<210> 5159
<211> 452
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-F7

<400> 5159

acggctcgaca attccccgggt cgacacacgc gtccgattcg tgattgggtt ctttatctat 60
tatttttctt acaatcctag ttttggaaacc ttggcatggg tcgtcaatgg agagttgttt 120
gagtctcata ccagaaaactt gggaatggca ttttgtgcgt tttggatctt tgggaatgca 180
gccatttcaa cctatacttt tagtagacag atcgaagcgt acggcactgt gggaacattt 240
gggtgtgtttg cagctattgt gtttgtatth ttgggtgatat tcctctttgt gtttgtggac 300
acttccaagt tgagcctgga agatgtgaaa gaacgctttg aagggtggaat gagcgctatc 360
gtaagaagaa atacgagaga aatgacaaga cacgtgcaac gcatttgtgg gaaatatttg 420
ggaatggaat acaagggacc atagcaagac ac 452

<210> 5160
<211> 431
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G10

<400> 5160

acgcgtcagg tgacattctt tggaaattgt tgggtgaaata tgacaggaag aggaaaaggt 60
ggtaaaggctc ttggaaaagg aggagccaaa cgtcatcgta aagtacttcg agataatatt 120

caaggtatta cgaaacctgc taticgacgt ttggcaagac gtggtggtgt aaagcgtata 180
tctggcctta tctatgagga gacaaggaac gtgttgagag tgtttctgga aagtgttatt 240
cgtgacgcag taacttacac ggagcacgct cgtagaaaga ctgtcactgc aatggacgtg 300
gtttatgctt tgaaacgcca gggtcgtacg ttgtacgggtt ttggtggtta agaggcaaac 360
aaagacatgg tgtttttcaa caacaccagt tgtgaaagaa acttggggtt cagtctcagt 420
agacccttcc t 431

<210> 5161
<211> 424
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-G11
<400> 5161

acgcgtcagc gtcacaaccc gtcttagtgc tttgcgactt ccaaaatgat attatggggtt 60
tcgttcccc tgagaagaag gaagccgtca ttaaaggagc ttcgaaactt ttgaactttg 120
cccgtgagaa gaagatccct gtagttcatg tgggggtacg ttttagaccg ggacaccctg 180
aagtttcgaa acgaaacaag atgctttctc ttgtttctc cagaggcccc atccttgtgg 240
aaggtactcc tggaagtgc cacgtagcag agttgaaacc aattgaaggt gaattcagtg 300
ttacaaaaag aagagttggg gcacattata ataccgatct tacaaccatt cttagcgctt 360
tgggcgctac ccacctgatt ttgggaagtg gttctacaag cggagttatt ctgtcgaccg 420
ttcg 424

<210> 5162
<211> 252
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-G2
<400> 5162

aattcccga tcgaccacg cctccgga cgcgtgagtt tgtggttgct gttggtgatc 60
gacacgaaag atattatcgt gaaccaaatt catttatata tcattggaga atgagtccca 120
aaaaggaaac accgcatact ccaaaggag gctatgcaaa agctgtactt gatagcattg 180

ttgctctgaa ggagatgaat gggtcctctc cacaggccat cataaaatat gtcaaggctc 240
acaatccgca gc 252

<210> 5163
<211> 441
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G3

<400> 5163

attcccggat cgaccacgc gcccgtaatg ggaataatgg gaatgataaa tgtggtaagt 60
aggatcatata aaagcatgga gtatatggag aggataagag aagagagtag ggtgtatgta 120
ggaatgagta taataacagg aatgatatgg agtaaagaag tgtggggatc atgggtggata 180
aatgatgtaa ggaatataag catgttagta tgctggatat ggttggaagt aataggagga 240
gtaaagaagg agtacagagg aataataagc agtataggaa taataaatat accgataata 300
aagtactcag tagagtgggtg gaataccttg catcagccag tgagtataag ctcatgggga 360
ggaagtatag gaagagaaga agtagaagaa atagtgaagg taataataat aggagtaatg 420
gtgagtatac-agaagaacat-g 441

<210> 5164
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G4

<400> 5164

attcccggta cgaccacgg gcccggggtc atgttaccag aactcggaag attatggaca 60
cacgcatcgt gtttatgggt gcccaaggctt tggaaaatgt attgaatgat gccggattgc 120
aacctgaaaa atcaagtttc tattttgtga gtcattccaa cttgaaaaag atcgggtctag 180
gtgaaaacga aatttggatc gacttgcaat aactatcgtt tgacagcgtt tttctaattgt 240
ggctctcttga gtgtggataa aataccttgt ttcaccttaa aaaaaagaaa acagaaacaa 300
aagaaaca 308

<210> 5165
 <211> 489
 <212> DNA
 <213> Cyanidium caldarium.

 <223> Clone ID: LIB190-056-Q1-E1-G5

 <400> 5165

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 acagctttgt ggtgtagtgt tgccatgggt tccaaagaag aacaaaactt ggcaaccacg 120
 tttcagtttg aagcacgttt gactcaagcc agtctaataa agaagatctt ggaggccatc 180
 aaagacttgg ttaccgatgc aaactttgac tgttcggctg aaggtttatac tttgcaggca 240
 atggactcat ctcatgtctc cttggtttcg attgttcttc acgctcaagg gttcgaaatg 300
 ttccgctgtc aacgagctgt ttctctgggt atcaatctgg cgtcggttaac caaaatatta 360
 aagtgtgcag gaaatgatga cagtataacg ctaagagcag acgacaaggg agataaggcg 420
 gagtttgtgt ttgaaagtca aacgcaagac cgtctttctg agtttgaact gaaactgatg 480
 gacatcgat 489

<210> 5166
 <211> 464
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-G6

 <400> 5166

 ttcccgggtc gaaacacgcg tccagataat gttcgacttc gaatcaaggg aatggaagag 60
 gaagatatcc ggatgggatt tgtatttgtt gacaccgatg ctttggttca aggactacg 120
 ttatttgatg cacaaattat gcttttggac tataaaaata ttatttgtgc tggatacagt 180
 tgtgtcatgc atgtacatgc agcagtcgag gaatgcacga ttgaaaagtt gctggcacia 240
 gttgatcgaa aaacgaacca agtgatacaa aagcgaccaa aattcttaaa accaggaatg 300
 gcagcgatcg ctgcgatatc tgtagcgcag ccaatttgta tcttaccttt caaagagttt 360
 ccgcagttgg gtcgatttat tcttcgcgat gaacgaaaga cagttgcagt aggaatcatc 420
 ctgaaagtgg ggcgtactaa tacgatagag tagcactctc acac 464

<210> 5167
 <211> 233
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-G9

 <400> 5167

 gtcaggaatt accggccgag ccacgcgtca gcccaaacat ccgggcaata caactggatg 60
 gcagttaatc ttataatatg ggaaattcca gtcacatgtc gcacgaaaca gcaactgggtc 120
 atgaacactc gagtctatca tcaaaggcat ctcgctgtga cactgagcttc acctgctaca 180
 cgtggacaca cgaatattcc gcaactcggat gggacaagtc gccataatgg cca 233

<210> 5168
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-056-Q1-E1-H1

 <400> 5168

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 cggaagag agagtgtgtg tgtgggttagg aaatgcacaa tgtcattgac agcaacgttc 120
 aagtttagtc cacctcctgt gcatgtcaaa agagaacaac caatgtacaa tctgatactt 180
 gaatatgcaa gaagaaaagg aatagacaga attgtagaga tgaacggcaa atggtggata 240
 tataactagga cacctcccaa tcgaaaggca ctgcggtatt ggtatgacat ggactgcgtg 300
 gtgttgaacc cagtcaagga gttacacacg gccaaagctt atgcgagaag actaacagaa 360
 gcaactggaga agagaactat tgtcgaattg cccagacaag atatttgtgt acgacgtagc 420
 gaccggaaga aacacggagt ggc 443

<210> 5169
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-H11

 <400> 5169

ccacgcgtca gcgagcagaa gattcaacaa aagtattgct ctcgctatgt tactgaagaa 60
gaagtacaaa gcaagcagtg catcaagtat gtatctcttc agaagatcaa gtacgagtct 120
tgctctgctc aatatgaagt tcaaaagatc aagcagcaac aatgtactat gacagtctct 180
gaacaatata tacagcccga tacttgctac aagtatgtcc ctgaacaaca attggtgcct 240
catacttgtt acaagtatta ttctgtaccc aagtttattg aaaagtgcta tcctcagtat 300
gcaacaacgg agaaatgtgt agagtatgag tatgttccat atgccacttc tacaccttat 360
ccatcggtat ctccaagtta tactccttca gcatatcaaa caacttctgc ttattaaaga 420
gccgaagact gga 433

<210> 5170
<211> 300
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H4
<400> 5170

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gtagcgggga gcgaagcggg aagagcccac tatgagaatc ctctttttct tttgtgaaaa 120
gaagagatgt atttgaaaaa agacaagaaa tatctgcagc aagaaaagag caaatttctt 180
ggaatggaat atcatggacg gtgagaatcc cgtgtatctc ttttctttgt attcaaactg 240
cgttacgata tttcttggtg tggagtcggg ttgtttggta ttacagcctt aattttgtgg 300

<210> 5171
<211> 432
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H6
<400> 5171

ccaagtacgg tctacaattc ccgggccgac ccacgcgtcc acccacgcgt ccgcctcgct 60
attgtcaagt tccatacggt gtgtagaaat ggagtcggag attagaaatt ggctgcttgc 120
tataggacaa cttcaaggac catacacaga gttgctaaaa atttatgagt tggatagcga 180
acagttggat gtttgtgaag gtttgttgtc ccaccttttg aagcaacaag aatattacag 240

aggagaacgt caggaatgag gtattcgcat attagaacga ctttattgcc aacttcattc 300
tctttgcacc aaagtcttta ccgcctcatt cacatcttgg aatacatagt ctgcaaggtc 360
tctaggggtca ttatctccgt cttccgagga gaaacaacct tgagggacat aaatataaaa 420
acggattatt ag 432

<210> 5172
<211> 475
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H7
<400> 5172

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ggatgttcaa agagactttt gtgaaggagg cagtttgcaa gttccagggtg ctgaagaaat 120
aataaaacct attataatc ttcgtagcat ttttgatgtg gtagctttta ccaaggattg 180
gcatccggaa aatcacatat catttgctaa gaatcatgtc ggtcacaaca tatttgatac 240
tactgaagat caccacggag tgaagcagggt gctttggcct gtacattgtg tccaacactc 300
caaaggagca gagtttcatc cacttttaat tcataaagat agtgacatac tgattcacaa 360

aggagttagt ccaaatatag actcttattc tgctttctgg gacaacgcag aacaaaggca 420
gacggaacta aagaaaaggc tcgtcgagaa gaatatctca cagttatagc tttgt 475

<210> 5173
<211> 429
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H9
<400> 5173

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caaatcagt tgaactcata tttattttga caaatcagt tgaactcata tttattttga 120
cattattcca ccatcagctg tgaataaagg caataaact taccctcatg ttggatattt 180
ataggttatt cgtaaaagaa aaaagagtaa aaggagact caagtatagc agtgtagagt 240
actttgagag gaggctgtat atataagttt ttgaggaaga agagccttct aggcagaagg 300

gtgaacacaa ttgttttagag attccagact cctagatctt gggtaaagaa gaagagtacg 360
aaggagactc aagtatagca gtgtagaata ctttgagagg aggctgtata tataagtttt 420
tgaggaaga 429

<210> 5174
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-A11
<400> 5174

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tctcgcaagt tggaaataca atgtggagta ttgaaaagaa cgttgaaaga tatatccgct 120
tatcaaaagg agtttaccga gatgaacgag caaatataac gggcaacacc cgatcaacca 180
tatcagcaat ggcaaaaagt gttggcagaa acggacagaa tggatcggga ctcgtatatg 240
acgttatcgg aagcgggtaca cagtttataa aagttgcaaa cgcagatgga cactttgcga 300
ggaaccacac actgggaaca agcctacgcg tctgctataa gaagcac 347

<210> 5175
<211> 360
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-A2
<400> 5175

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gcgacgtcta ggtgaagagt tggtagattg gagtgggtct ggtggtttct tttagtggta 120
cgtttaggag cgggatcgag ggaggaggct aggacctcgg ttatctggca agcgtttaag 180
cgagcggggg ggtgagggga aaggagtgga cgagggagga caacaggagg gggaggggga 240
cacatggggg gtgtgtggtc ttctagcgaa gcgagctagc gagatggcca gcagcagctt 300
tgagaaaacg aagcggggcg cgagacgcaa agaaacaacc cccgcggagt tgtgtagttg 360

<210> 5176
<211> 431
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B12

<400> 5176

gaccacgcg taagcatttt ggcgcccaat agaagatgat gtctacaaaa ggccgtctca 60
atcaaataca gaaacttcac ttcccaaagt aacagtcgaa gaatttttct catgaatgta 120
cgtgggcttg ttggcaacaa aatttgagtg atcagcataa ggaacaagat aggtatggga 180
tgaatagata ccatgcatat cttgtcaaag taaactatct atagatgtgg aggaaactag 240
agcatactga caatggagag ctcaaggaat agttgcaaca gtcattctat gtcatgtcct 300
ataaagagaa atgcggaatt gtgtagcaac aatcagctgc gtgttttgtg agccaataat 360
agtattgagc gcacgagaca catgatcccg acatgagcct aaaggcattt cactgcacat 420
gaggacatgt t 431

<210> 5177

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B4

<400> 5177

ttcccgagtc gaccaccccg ttcgcccaag cgctcgccca cgcacccgag gtgtccgctg 60
ggataggcat atttatccgg gttatacgat accgccaac tatgacagta tgattggaaa 120
gcttactgtt tcggggccca cgagagacct ggccatccgt aggatgaaag gcgcactaga 180
tgaaatgaac attgcgggtg ttccttccac tattccttga cgcagggcta gttgtcagca 240
gtgagagatt cattgaaggc agggcggttg acacaaactt tcttgagaca gaagacattc 300
gttcccaact ggtggcagcg gtatctactt tattgtaacg aaagaaggag cgtacttttc 360
gcg 363

<210> 5178

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-057-Q1-E1-B7

<400> 5178

accggtcagg cattccccggc cgcagcgacg cgtcaagatg gaggcaagga agtgacgcag 60
tagatcaggg agtaacacat gcaagtaggt acagcgaacg ggtgagtgga gaggtgtcaa 120
agagtgggag aacatgatgg cacagaagaa ggtaagaaat ggggagagta aaaggcatag 180
cggaagtaa aagcgggaat ctgagaggag gaaagccaca ttggagcgga gaaaacggcc 240
aaggagggag aagtcaggag tggggaaaga gtcggaaggt acaggagag tatgaccgag 300
taatgaagag tggagtaaac aggaaggag ctgaaaggag ggaatgaacg gaagttaggg 360
ganaaacacg tgccagcagc aacggtaaaa cgtgtgtagc aagcgtagaa cggaagaact 420
gggtgt 426

<210> 5179

<211> 388

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-C4

<400> 5179

attcccgagc cgaccacac gtccaattca atccatttcg attgagccgt tttgcgattt 60
tagatacgaa acaaccaagg tattatctct gccgtgttgc tttcttagct ttcatactcg 120
ccgcttgttt cgagggacaa gtgtttgctg ctaagaaaag cgaagctaag gtctccagcg 180
ccacgtctcc aacgccagtt gctgaaagca acaatgagga gggcttctca gactagcaga 240
gaactcggcg ctgacaattg ggagaagacg ttggatggat ggagagctgc agtagttatg 300
ttttatcttt catggggtga tgattgtaag gatatggagc cgcattttca ggggcttgca 360
gaatctgcct ctaatgaagt tagcgttg 388

<210> 5180

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-C9

<400> 5180

gaccacgcg tacggcggaa gggagtggag tggcctattc tatggctttt gctttgcgtg 60

gtctagcgag tctttcaagt cgtttgagta cttggaaaca gggttacaag attgtaactg 120
 ttgcaaataa ttttgaacga gaaagaggac tgcgactggg gagttccttc caaagtgcgc 180
 ggcagtggac ttcgttgcaa ggtttggttat gtcgctatag aagtgcacgc gttgtggagg 240
 gagggaaaaa gcaaaaggga gtcgctactg aaagaagtcc tgtttctaca gccattccca 300
 tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360
 aacgaacggt agtctatttg tggttgggaa ctgccaagtt tatcactgct tgtattgctc 420
 gagtaataat cc 432

<210> 5181
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-057-Q1-E1-D9
 <400> 5181

gacccacgcg taagagagga attggaaggc gattgcttgc cgaaagagcc tacacacaca 60
 aaagtgtttt gtcgtatagg taaccaattc ttcttggtcc atgtccaaac tgcaaacagc 120
 taccgttcgt tctgcagtag cagagatttt aaaagagtca caagagaaga aacgcaactt 180
 tgtggagacc gtggaactcc agataggact caagaactac gataccaaaa aggataagcg 240
 ttttagtggg tccattaagc tgccatatat tccaaaacct aaaatacaag ttgcagtatt 300
 aggagacgca attcacgtac aacaagcaca ggaacttggc atcgatgctt atgacgtgga 360
 agccttgaaa aagttaaca gacagaagaa gcccatcaaa aagttcgcaa agaaatatga 420
 cgcttttct 429

<210> 5182
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-057-Q1-E1-F12
 <400> 5182

gaccctagcg taaggagagt gtgtttgtga gttgtgtgtg gtattgttgt tttacgtctt 60
 tgtgagtgc cactcgtagg agtgtgatga atcctcacia agatgataga cgacagtagg 120

acgatgttgt tttggtataa aacacccacg ggacacacac acaaaccccc accgcacgac 180
aacaacacac gcaaaacacc accccacacc aaccacacaa accacacaca caaacagggc 240
ggcccccta aaggatccac cctccccctg cgtccatgc aacctcacac ccctcccaca 300
gggtccccc agttcaactc acgggcccgc ctttcacacc cccctcaccg ggcacacccc 360
gggcgtcccc aacttaaacc ccctgccgga aaaccccccc ttcccccca 409

<210> 5183
<211> 403
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-F4
<400> 5183

cgaccagggc gtccgcgttt tttttttttg cgttgggcca cgcgttagag aaagcaaagc 60
tgggcaagtt tccgcgactc aaagagagtg gcttcttaga ggtggaaaat ttttttcagg 120
aacttgctgc tttttcttgg gcttcttagag aatccgtgaa agtcgacatc ctacctatga 180
ccccgtcgag gcaaggaaat atgcacttgg tgtggaagca tacaatcatg ttggatagtc 240
ttatattgat gtccgtttgt atgccttctt ttgtggcgaa cgaaacagta cgtaagggtgc 300
ccttgagtgg gagaattgca acaggcatgc agtgcgtaga gggcgatcgt gcgaatcgtg 360
gtggtgtttc aacaaagggtg atagaaatgc aaccgtcgtg ttt 403

<210> 5184
<211> 394
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-F7
<400> 5184

acggtcaggc attccccggc cgacgacacg cgtcaggtag gggctacgac cctcgttcac 60
gaggcattcg gcccaaagga tagtcacaag agacgtttcc cttgacgcat ctgcagaaac 120
agaaacagag aaagtgggat ttcgagaaag actccgacaa gtgaggggaa atcgtagtgg 180
cgcctacttg ggaaaacggt aggacggagt aaaaccaaag cgagaggaag aactggacgc 240
aagaggattg tgtcgtagag atgggcagggt agcaggagga agctgggttg cgtgaggcct 300

ttcaggccag ggtattcgcg gattagggcc ctgaacacta tggagcgaga aggatgggtg 360
gacatgaacg actttaatat taagatgggg gaaa 394

<210> 5185
<211> 350
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-057-Q1-E1-G2

<400> 5185

agagtggaag aacaggagag cacagaagaa tgtaagaaat ggtagagta aaaaccagaa 60
aggaagtaga agcgggaatc tgggacgang aaagccacag tggaactgag aagaggtcca 120
aacgggagaa gtcagcagtg gggaaaattg ggcaatgtac agggaagtat gacgcagtaa 180
tgatgagtgg agtagacacg gacggaagtg aaaaggacgg aatcggcgga agttagggca 240
aaaacgcgtg ccagcggcag gcgtaaaacc gtgtgtcggg ggggtagagc agaagaactg 300
ggtgtaaggg tcgagtagta cagtaagtgt aaaagggaaa ggaaaggaga 350

<210> 5186
<211> 431
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-H9

<400> 5186

gaccaagcgc tcagcccacg cgtccgcca cgcgtccgat actgtccgtg gtgtaaaaga 60
gaactgccaa aatgctgtat ttgtttgttc catctgtctt gttggaacct tgcgtatgat 120
ccacctgtca ctttagataa gcagtgcgat gcaaagtatt ctccttgac gctagagaat 180
aacaaccatt ggtttacttg gtgcattcgt tgtcgacacg caagtcacat tcaccatata 240
ttacagtggg ttgattctgc aaggagagaa gaaacgtatg tttgtccagt gtccggttgt 300
aattgtcgat gttggatgga aggaggaaga atggcttgag ggtgcggcaa ttgtcttccc 360
acgcgctcgg cttgttgctg acgcgtgcc aattccttct ttcggccgca tattatttcc 420
cccacagagc a 431

<210> 5187
 <211> 322
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A4

 <400> 5187

 agcgtacacg tccacacatt gtccgattga cttgaaaaac acgaagaatg ggaaatgttc 60
 acggttctct tgctcctgct ggtaaagtac gacgtcaaac acaaacgggt cgcacacaag 120
 aaaagaataa tcgtccaaaa gggagggtt ggcaaacact caagtacaat aggcgttttg 180
 tgagtgatgt tgtagtttt ggtagagaa gatgtctcaa cgccaactcg tgaagcgact 240
 gcaatgagaa agacagtact ttacagcgat ttacgtctgc taaatgcttg cgggcagccg 300
 ctctagagga taaaactta cg 322

<210> 5188
 <211> 291
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A5

<400> 5188

 aattcccggc tcgaccacg cgtacgggcc aatcaaagct agtgatagct ggtactcctc 60
 gaaagctata taagtagcgt atgcaggaaa gaagaaggta aaggaagaga aggaagaagc 120
 agagagggac tatgagcgag aaggtggata gtcgagaggg aaaaagccca gaagccaaga 180
 taaggatatca aagtaaagaa agaaggaaaa ggagaagaag agagggtagg cttagaagca 240
 gcaaaccaga gaggaagcg ttaaagcatg aaagaaaaga aatccgaaaa a 291

<210> 5189
 <211> 341
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A7

<400> 5189

 aggaacgtac gagaaagcca agtgaggaaa agaaggcaag tagagggcgg cccgagaaaag 60

gagagggcgt aagacgtgat acagagtagg aagaaaagag aagagagcta gaaaggaggt 120
 aaaagaagag taaaaggact agaagaggta cggaattcac gaggaaggag cgtgaaggaa 180
 ggaggaatcc caagtaatcg aggaagaaaa agcttcggtg aaagcgtgaa cggattttgt 240
 acacactgcc cgtcaagttc tggaagtgtg ctaggaataa gcaggagaag tagaagagag 300
 taggaaaaga agaaaggaag tgaagacgta agacgtgaaa a 341

<210> 5190
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-A9
 <400> 5190

gacccacgcg taagcggacg cgtgggggtgg ttcgagagat accactatac atcatcacga 60
 cgttcgtatc gcacaacatc acattgaaac acttcgagga cacgaacaag aagtttgtgg 120
 gttgaaatgg aacgtcgtatg gaactcagtt ggcttctgga ggaaacgata atttgttgat 180
 ggtttgggat aatcttcact ccagtcaacc aaaatatcgt ttagatcagc atcttcgagc 240
 tgtaaaagcc attgcttggt gtccttggca atctcattta cttgcaagtg gtggaggaac 300
 agcagataga acgatcaagt tttggaatac tacaactggc tcctgtttac agtccatcga 360
 tacaaaaagt caagtatgtg ctttgctctg gaatagacat tgataggaga tcgtcagcag 420
 tcatgggtt 429

<210> 5191
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-B11
 <400> 5191

aattcccggc tcgaccacg acgtccggcc acgcgtccgc ccacgcgtcc gattggatga 60
 tgcagaacat agcagtaagc gaaggtgaac taatcaagat tagaaacgcc aatctaccca 120
 aaggaacgtt tgtcaaaactt cgtccacaaa gttcggagtt tctagctata tcggatccca 180
 aagcagtttt agaagcgaga cttcgaaact tttcttgtct acccaaggag atacgatcgc 240

tattcattat ttgaacagaa tttattggat cgatattttg caagtacagc caggagatgc 300
cataagtatt attgatgcgg acgtgaatgt ggaatttgct cgcctgccg atatggaaac 360
acagcgccag tgaaaacaat actgcaacca atactattcc ttctaattct cattctacaa 420
atatggaaag cggagac 437

<210> 5192
<211> 393
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-058-Q1-E1-B12
<400> 5192

agcccacgcg tccggcgaac gggtagtaaa agaggtgtga aagagtggaa gaacatgaaa 60
gcacagaaga atgtaagaaa tggtagagt aaaaaccaga aaggaagtaa aaggacggaa 120
tgaagggaag ttatggcaaa aacacgtgcc atcagcagcg gtaaaacgtg ttagcaagc 180
gtagagcaga agaactgggt gtaaaggctg agtagtagag taagtgtaaa acggaagga 240
aaggatagaa agaggaaagg gatgaaatgc agagatctct agagaaaagc aagacagaaa 300
agacaggaag acacagtaaa tgatgcgaga aagcatagca agtgaaactg attacgaacc 360

cgtgtagtct atgcagtaca tcaactccca atc 393

<210> 5193
<211> 331
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-058-Q1-E1-B4
<400> 5193

gtggggaaaag aggcaatgaa atggcagaag ccttgagaga aataagtga agactggcgg 60
aaatgccggc agatagtggg taccctgcat atttggcagc tagattggca agcttttatg 120
agagagctgg taaggatatct tgtttaggct cccctaatag acaagggttct attactattg 180
tgaggagctgt atcaccacca ggtggtgact tttcagatcc tgttacgtca gccacccttg 240
gaatcgttca agtcttttgg ggtttggata agaaactggc tcaacgaaag cattttcctt 300
cgggtcaattg gctcaacccc tattccaagt t 331

<210> 5194
 <211> 344
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-B5

 <400> 5194

 gacccacgcg tacgggtttc accagtcggg ttgacagatc atcaciaacc atggaacaaa 60
 gtcaaaaaca gtgcttatgg caaacgacag gtgaaagtaa tatcccttgt aaaaaatgac 120
 caagtgatag aaaagttata caagaaagtg gttgtgtgta tacgacaaca aagttattcc 180
 ttggctttga atacttgcag agcagtattg gaagggtggc tcgactgcct ggaagtctgc 240
 acttgtttct atccaggttg atgtacactc acatactgac tagataaac taacaactcc 300
 ggatgccttt gagctgattc atacagtcgc tagtgagtat cccc 344

<210> 5195
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C10

<400> 5195

 taagaaagga aatgggtgatg gaataacttc tgtttcattt agtcctcggt ctccttatcg 60
 tattgcgact gggtcggttg aaaagacagt gagagtattc gatgtagaga ccggtgaact 120
 tttgcacaat tttcgtcaac atgcagattc tgtatattct gttgcctttt cgagtgatgg 180
 aagatatctg ctatcaggtt cacttgataa gaacgttata ttatgggatc ttgcagctcc 240
 ttctccaaat aactatacaa ttttcaaagg ccatactgac tttgttttgt ctgtcgcatt 300
 tagcttagat ggtcctcttc tcttgagtgg cagcaaagac cgtactgtta ctttctggga 360
 cccgagaatt ccttctggaa gtattggcat attggaagga cacaaaa 407

<210> 5196
 <211> 167
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C3

<400> 5196

acgcgtcagc ccacgcgtcc gccacgcgt ccgctttttt tttggtgaaa gaacatggca 60
cttggaatg aataacgccg ttcaaaaaaa tgcaaggag tgaataccag gttgactgtt 120
gagtttctt caactgaatc ccttacggca gttgctacca gtcactt 167

<210> 5197

<211> 304

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-058-Q1-E1-C4

<400> 5197

gtggttggtg acaacgacag gtttcgacgt cgacgatgcc taaacaaatc aaagatatca 60
aggaatttct gcttttggtc cgcaaaaagg atgccagagc catcacaatt aagaaaaaca 120
agaccaacac gaaattcaaa gtccgttgca gcaataatt ggaaaacttg gtaattaaaa 180
gaaaagacaa ggcgaacacg ttgggacaaa gtctccaca agtttgactt tgaaaaagat 240
tgattagaca taaactctat cgttgttggt cttgtanaan anatnnnnnn nnnnnnnnn 300

nnnn 304

<210> 5198

<211> 348

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C5

<400> 5198

aattcccggc tcgacccacg cgtaacggtct catatgtgtc gattttacgt caaacagta 60
acgcggatat gagatagcat tctaatagaga gtcgaggtac cgagagtttg ttgggaaacc 120
taaaatttac gtccatttgt gaagctttca aacatatctc ttttctcttg tataacggaa 180
atgtgatttc gagagagaga gagagagaga agcataaggc ttcgactgat gaactttaa 240
gtttcattcg gaaaaatagt gcagtaggca aaatgcaaac ttggtaaac ttgggctctc 300
aagctcctgg gataggcggc aattatgtct tgcctctga ttccta 348

<210> 5199
 <211> 337
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C7

 <400> 5199

 aattcccggc tgcacccacg cgtacgccc a cgcgtccggg gcaattcgag gcgccaagat 60
 gatgtaatga cgtgaacaag gtgcttgtga acaacttggc cactatgatt ttgttgttct 120
 cttcaaagtc aaggagtttt tagtaaacad attcgttccc ttagctttac aattcatgga 180
 cacctgttgc cacagttctt tgtctgcaac tctcttggag gggttccccg agtcgttacc 240
 accaaagttt ttggtggagc acctcgacca gttgcttgtt gtggacctgc gttgctctca 300
 actgtacagt ttgggacaca ttagacgttc ttacagt 337

<210> 5200
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C9

 <400> 5200

aattcccggc ctcgacccac gcgtacgccc acgcgtccga gtaccttgaa aaaggaacct 60
 catcggttga acgaaatata tgaacatatg ctttctgatt ctcaaaagcg agctttgttg 120
 gagtatttga cctgttgtgg ttgtcattgt gcttggaaacg cacggcctaa tgctcctttt 180
 attgttttga aggcaaacga tagttgcatg gaatacaagg tatattggta ttccaagaaa 240
 gatggaagga agattcattt cgattgttgg gagtataaca gcaatgaacg catactttac 300
 ggttgtgaag agcagcaggt ggcttccgat tggaatttat gtgtagaata tggcaatgtt 360
 cttactgtgt ttttaagtaa ttcggtatag atacaaagca acagtgtgtg tgtgtgtgta 420
 tgacaccaca aaatggt 437

<210> 5201
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-D12

<400> 5201

aggtaccagt tacgaattcc cggctcgacc cacgcgtacg ctttgtcgag ggagaggatt 60
cttcctgttc tcatgtttgt ggtgtggttt cctgcaagtt tggatggaa acaaccagca 120
acaactactc aaagaatttc aagttatcac tggataacta caaaatggat atctttgaaa 180
atgaaacgtc attcttctcc aaaccaccac accgtaaggt ttcctctccg catgatgaac 240
tcggagaaca agacgcgacc cggttacttg caatagttgc ctttgattcc tatcgacgaa 300
atatactcga aaagttttcg ttggaatcga attggttgct atgccttgta caacggtgac 360
caagcacttt gttatgtagg ttacaccaa aacttgcaaa gaaagattgc ctttcacgcc 420
aagttgcaac cagacaattg caaatttttc 450

<210> 5202

<211> 393

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-D4

<400> 5202

atccccgggc gacccacgcg tcagggcctg ccaaatagta gagaagaaat cgatcaaagt 60
gaaagcgagt aaaagatgag gtatagagaa tggcggctct aacagtaagg atccaaaggt 120
agcgaagtaa atacacctct gaaacgcgtc cagtacgaaa ggacaaacga gtgtaacact 180
gtcaagtcgt ccaacgcagc gaaacagcaa taactgtgac aatgcagtaa actagcagta 240
cgaccgagag acccagaact cctgactaga tacgtttagg gacgacagac aatcacgaac 300
tagatgacgt ggggtaagag atcaaagacc actgcatgac gataaggact ctaactgagt 360
aaggaaaata agcttaagct agtttggccg ggg 393

<210> 5203

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-E7

<400> 5203

aattccccgc tcgaccacg acgtcagccc acgcgtccgg aatcacacat catgaccaac 60

agcaacgtcg cctttgtaac cctcttgtct ccaaactctc ctagaaataa gcttttgtta 120
 gggaaaagac aacattcatg taaacatccg agtcacaata gttatacaaa gtatcaagat 180
 gctgctttca agtgcttccc actgcaagca aaggaagatg gccaaaaggg aggtggaaag 240
 ttcaatcctt ttgcggcact tggaaatggt gggaacttta tggacgccgt gaagaaagca 300
 caggagtttt caaaggaagc tggaaagatg caggaagagt tatcaaagac agagctgaaa 360
 gcttcttc 368

<210> 5204
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-058-Q1-E1-E8
 <400> 5204

aattcccggc tgcaccacg acgtccggtg tttttgggaa gagagacaac ggaacaccca 60
 agtcgtactt gaagcttaca cacacaatga cttcacacta tcatcagata tgggaaacgt 120
 tggtagttgc caaccaacag ttgaaacaat ggttgcataa aaaccaacct ttaccaaata 180

ccaccactac tactactacc caagacacgc cacaccaaac gagtcaaaat agttcacaag 240
 tagagttgga aatggaaatt gtcaaagaat tggaacaatc catgtcggaa ataggttctg 300
 tcgatagttt gctanggaaa gaactggata caagtcgtct ggatgacttg tcacaacaac 360
 gacaacaact gttggaggat gcagtggaat gtgaagatga ctatgtattg cttcatcgag 420
 atacgcatcg tcacgtatgt aa 442

<210> 5205
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-F5
 <400> 5205

aatgccccgg ctcgaccac gacgtcacgg gaaaaagata cctcactctc cggtcatatg 60
 agagatgagc aacgacggcc aacatgagca acgtggtcgt ggtggtgcat cgctgcatca 120

aagtgccaaa agcttacttg tatgcgaaga aaaagaacaa acatacaaac ttggactctt	180
tccgacgttg gtttgcttgg cacttacacc atgaaactag tcaacaattg agcagacgtc	240
attgggagtc agttgaacgg agatacttgg acacgttctt ttcccatagt ggactatata	300
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tc	362

<210> 5206
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-G10
 <400> 5206

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tgagaatcct ctttttcttt tgtgaaaaga ggagatgtat ttgaaaaaag acaagaaata	120
tctgcagcaa gaaaagagca aatttcctgg aatggaatat catggagggt gagaatcccg	180
tttatctctt ttctttgtat tcaagctgcg ttacgatatt tcttgttgtg gagtccgggtt	240
gtttggtagt acagccttaa ttttgtgggt gttataaatc atccaaggct aaatacgtaa	300
agagaggaaa gaggtgtatg atgcaggcaa agaagtgacg cagtagatca gagagtaaca	360
catgcaagta ggtaaagcga acgggtgagt aaagaggtgt gaaagagtgg aagaacatga	420
aagcacagaa gaatgtaaga a	441

<210> 5207
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-G11
 <400> 5207

aatgcccggc tgcacccacg cgtaagagct cctggaggtc atttaggtag attctgtatt	60
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aaacaaaaga gcgattatac gcttccaaag tccattttga ccaattgtga tattagccgt	180
ataatcaact ctgatgaagt acagtctgtt ttgcgaccta agataataag aagacgcata	240

tctactcgaa agaagaatcc actgaagaat aagaaggaaa tgttcagact caatccttat 300
 āgcaaggttc ttctgaaaga agcacgggag gctacgagtc aaccttcgca aaagagaaag 360
 aagagattgc ttcgaaaaaa gaataagcaa gtgaagcaga ttggtcgaga gtattacaag 420
 aacatagtcg cgtaataaa 439

<210> 5208
 <211> 340
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-A3
 <400> 5208

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 atgaagtttc caatcacttt acggagaagc agaactgggt aatgaatata agagtctagg 120
 atgacacgcg ttttgacaag acaggacctt catctggggc atgtgaggac tcgaatagtt 180
 ccaaactggc tacagaaagt cgccactatt tggccaaacc gtcaacttgt agtttgcgct 240
 gttgttaacc tgaaatccct cttgggtcaa cccgtttttt aacaaatcca caaggataac 300
 tccgataatg aaagcgtttt gattaacttg ggtcctctcg 340

<210> 5209
 <211> 223
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-A8
 <400> 5209

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 aggaaagaaa gtggaagaac tcgtgggtgc ttccaaggac cggttaaaac atatgattga 120
 gaagaacgct tagtgtgttt gtgtgttttg aagcatttgt tggagtaaag aatcatattt 180
 ttgttttcaa gtaaagatca tgtaagttct gtttgataat tac 223

<210> 5210
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B10

<400> 5210

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ggtttgactg gtttctctta ttgtacaacc taaaatttag tttagctatt tcagcacctg 180
tcgtctctat tgaacacaaa taccgaagcg gtcttcttca aggagaccga aaagacaaaag 240
tctacagaac ctgttaatgt taccagcgct cccaactcaa actcaaagtc gggtcacattt 300
gacggacagt tgaataagtc tgcttctaat acatctccac gaaccaatat atctctggac 360
tctgcaaagt ttaaagagta ctctcgaag ttcctcaacg atatttcttt gcgaccggg 420
ttctatggtc aac 433

<210> 5211

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-B4

<400> 5211

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tcaccattgt tgggaaaaga acgaggagct tcttggaata tgaggacgca aggttctaata 120
gtcaccggaa cctcgaccga tagcagggtta actttagaaa gtccaagaaa tatttccagg 180
gcacaccatc ataggcggtc aagtagtcaa gctgtaagac tacttcgtca ggaaagcacc 240
cgggttcgca ataattgtgt ggatcgtttt cagcgagatt tactgccagc aggagactt 300
ctaaccgttc ttttagttac gagcgagtta acagcggagt tattggtact tttatttagc 360
tggaagcaaa cctgtgatcg tcctttacac ttttgatat gtgttttaata tttatacag 420
ctattttcac ttgttctgaa c 441

<210> 5212

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B7

<400> 5212

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ggaacgggtg aaaactcgct tgggaattggt ttttatagac ttcgatcata gtgtacctgt 120
tggggaaagg ctcaaagtgc ttcgaagact tgacgagata tctgttcgag ccaagcaata 180
ttttaaagga ttgcatctgc ttatatccga caaatacgaa atttctaact tgacgggacg 240
catttctatt ccttatttct ttgaatgcag agaactcgac aaatttctgt gttacaagta 300
atggttgatc ggttggttgg agactccatc atgtgctata actttgcagg gttggaacat 360
gtgtatgttg aagtgaaaag tcgaagagtt cctcccatag ttg 403

<210> 5213

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C6

<400> 5213

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ggctagtgtt tcgggtcttc ctggaagaat tataaaggag acggaaaagt tacttcagga 180
tccagttcct ggaattagtg ctgttcctca cgaagacaat gctcgttatt tcaatgtgat 240
tatccagggt cctgattctt ccccttatga aggaggaaca ttcaagttgg agttatttct 300
tcccgaagac tatcccatgg ctctcccaa agttcgtttc ttgacaaaga tatatcatcc 360
gaatattgac cgcttgggaa gaatctgttt ggatatattg aaagataaat ggag 414

<210> 5214

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C7

<400> 5214

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aagaggaagt agaagatgtg tggaggtatt gaggaaggag atgagcataa ggaggagagg 120

agtgagtagg ataaggttga gggagaggat aaggagggga gaggagatag ggataagtta 180
 agagaagaga taaaggaaga gaagggataa gagaggagag aaggagagga agggaagtaa 240
 aagagggagt aaggaatgta agtaaggaag aagaaggaag agggagtagg aaggagagag 300
 aaggaaagaa aggaagaagg agaagaaaga aggaagagaa gcggatgtta aagggaagag 360
 gaagtagaag atgtgtggag gtattgacga aggagatgag ca 402

<210> 5215
 <211> 434
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-C8
 <400> 5215

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 aacccaaagc aattgacggg aatcggaaaa aggggtggat cacgtaaatt aatccgatat 120
 aaaccgagaa cttacctct ccaagaagg gttgcacggc tgtcgaaaga acgtgctgtg 180
 aagtgagaga acgtacgaga aagccaagtg aggaaaagaa ggcaagtaga gggcggtccc 240
 agaaaggaga gggcgtaaga cgtgatacag agtaggaaga aaagagaaga gagctagaaa 300
 ggaggtaaaa gaagagtaaa aggactagaa gaggtacgga attcacgagg aaggagcgtg 360
 aaggaaggag gaatcccaag taatcgagga agaaaaagct tcggtgaaag cgtgaacgga 420
 ttttgtaac actg 434

<210> 5216
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-D10
 <400> 5216

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 taattttcat gttgacaagc gagtgacgaa agacaaagg gtctagctcc gttgcaacac 120
 tggtgatagt actatatata tacatgtgtg tgtgtgtgtg tgtggcgggtg gtgtcggttca 180
 ccaaaagaat ccagaagatc attcataaac agtggaataa cttgtaattg gtgatggata 240

tgtttttcta gtctttggaa ataaatgaca tgc

273

<210> 5217
<211> 420
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D6

<400> 5217

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tttgaggaag cgcagtctct tcgtgatata ataacgaacc aagcaccttc ttttgccttg 120
agtgcagtga tgcaagttgc tcaaaaatgt aacaagacca atggcaccca agataccgat 180
tcattacaga gtataaagcc aagttgctat tctagtcatt ctagtgtagg aaccgccaga 240
aacagttgca agttgacaag agaccaagag ccgtgggtga cagatttttc cgtatcgcgt 300
tcgagcagct cagagattcc tctaggttca ccttccacat cgtctctagg ttcttcagct 360
agtggagcag tggaaccttt ggcttccggt agtgcttggg tttctcctt tctattgaat 420

<210> 5218
<211> 357
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D7

<400> 5218

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tttctgaaac acaaatatgc gtgccaagtg gaaaaagaag agaacacgac gcttgaagcg 120
caagagaaga aagatgagac agcgttccaa gtaacggaag aattcctcgg acgtctgagt 180
tgaatagagt tcctaaaacg tggaaaaact ctttttgcaa ctctggcgca gtgagtatac 240
cctgctacgg aaggttggaa gtgtttccga ggattgttcg caagttatga taaaaggttc 300
tttggttttt tgttttcaaa aaaaagtaca tcaacaaaag gaacaagtga aaaattg 357

<210> 5219
<211> 372
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E12

<400> 5219

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aggatatggg atctgcggta gaacatatga aagaagcagc accgactgtt tagcaaaaac 120
acagcactct gcagaaaaga gaaaatgtaa agtatagagt gtgcggcctg ccaaatagta 180
gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa tggcggtcct 240
aacagtaagg atccaaagggt agcgaagtaa atagacgttt gaaaggcgtc cagtatgaaa 300
ggagaaacga gtgtagcact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa 360
aatgcagtaa ac 372

<210> 5220

<211> 75

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E4

<400> 5220

ccccaaaagg atcaaacctt acgtaccctt gaatgcaacg tcaaaacctt tcaaaagtgt 60
caccaaaatt caatt 75

<210> 5221

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E7

<400> 5221

gaattcccgg ctcgaccac acgtcagaag aaaaaagagt tgtctgagga ccaaacagag 60
tgacaagaag agatggcaag gagaatattg ggtgcttata tgggagatgc cacagtggca 120
actctgttca gtatcaaaat gttgttctat cttactatca tgggtttctc cataactatc 180
ttggctctca tgggaaagaa ctcggatggg atttggtatc atagtgtgcc acctgcagaa 240
caatattgtg catacaagtc ttcattggag gtgaaccacc atggaattgc ttcctattgc 300
aagtatatcg ttgccgtagc tgctattggg ttggttatct cgtttttcca gttttgctac 360

ggctctgttg gttatcttttt caagtggcaa caaaagttgt ggtatattga agatgctttc 420
aatctatttt 430

<210> 5222
<211> 423
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E8

<400> 5222

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aagacgtaaa gaatggacaa ggcaaacaac tataaaccca agtttctctcc tatcaaagaa 120
agaaacagaa tagcgacgga ccaaccagaa atacgcagga ttccggtacc ggccaataga 180
tatactccgt taaaacagtc ttggttataa atatatgagc ctttggtaaa gcacctgaaa 240
ttgcaagtac gaatgaattt aaagtcaaga atgggtgagc tcaagaatgg tcctgaaaca 300
gatgactatg gcgctctcca gaaaggtgaa gagtttgtag gagcggtcct cgtaggtttt 360
caagtttctg atgccttggc ttgattcgg ttggacgact tgtttgtgga cagttttgac 420
att 423

<210> 5223
<211> 375
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-F10

<400> 5223

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aaaggagtag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt actgaagacc 120
gacacaggta ctcgaggaga aaggagaccc aaattaaggt gagagaatgg acgataagga 180
actaggcaaa aggatatggt atctgcggta gaacatatga aagaagcagc accgactgtt 240
tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatagagt gtgcggcctg 300
ccaaatagta gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa 360
tggcggtcct aactg 375

<210> 5224
 <211> 425
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-059-Q1-E1-F11

 <400> 5224

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acccacgcgt caggaaaagg aaagaaagcg aaaaaatagc gaataaatct agagtagaaa   60
gctgtaagaa gaagagtagg atcggcagag aacgtacgag aaagccaagt gaggaaaaga  120
aggcaagtag agggcgggccc gagaaaggag agggcgtaag acgtgatata gagtaggaag  180
aaaagagaag agagctagaa aggaggtaaa agaagagtaa aaggactaga agaggtacgg  240
aattcacgag gaaggagcgt gaaggaagga ggaatcccaa gtaatcgagg aagaaaaagc  300
ttcggtgaaa gcgtgaacgg attttgtaca cactgcccgt caagttcttg aaatgtgcca  360
aggattaagc aagaaaatta gannagagta ggaaaagaag aaaggaagtg aagacgtaag  420
acgtg                                           425
  
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<210> 5225
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-059-Q1-E1-F12

 <400> 5225

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agtcgtccaa ctcagcgaaa cagcaataac tgtgaaaatg cagtaaaacta gcagtaggac  120
ggaaagaccc cataattctt gactagatag gtttagggag gagagagaat catgaagtag  180
aggaggtggg gtaagagatg aaagaccact gcatgaggat aaggaatcta actgagtaag  240
gaaaataagc ttaagctagt ttggctgggg aagtaaagcc taagaaagag taaattaggc  300
aagcaaaggc atgagagaag tataatagca gaagcatgct tgaagaaaaa ga          352
  
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<210> 5226
 <211> 181
 <212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-F4
 <400> 5226
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 aaagaaaaaa aaaagaacgg aaacacagcc aactaggtct tcccgggtggg aggatcaaag 120
 cgttgggttcc cactgatccc attccatgac cctcctataa gacaccggat ttcctattca 180
 a 181

<210> 5227
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-F6
 <400> 5227
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 aacatgtgta tactcccacg ttgattcaag ggcacttgag tagagaaaag gtcatatctg 120
 tttcttgtgg acgcagtcac acagcagctg tcaccgagag tggacaagta tggacttggg 180
 gatatggata cgaaggtgaa cttggacacg gagaaaagtc aagtcagttg caaccgaaac 240
 gagtagagtc tttgaacaaa gtggtcgatg ttgcttgtgg aagagacttt acaatttttg 300
 tgtgtgagga cggtttatat tcctgtggag ctgatgacta tggacaactc ggtttaggtc 360
 ggtcgcatgg agagaggttt gtacaaactc caagatcact ttcaggaact ggcctatcgg 420
 aaattgttgc 430

<210> 5228
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-G4
 <400> 5228
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tgggtaaggt catttcactg gacatagttt tagaaattct tcattgggaa aaccttgag 180
 ttacttaact tagtcgcctt gtggcagatc aacttttcgc cagcaggagt caaatctaata 240
 tgggtcttcat ctgtcgacct tcactagagt tgagccactt gcattggaaa tgggattcgc 300
 attgtagcca ttcagtatgc tcggcgggtg atggtgat 338

<210> 5229
 <211> 162
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-G5
 <400> 5229

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 aaaaaaaaaa aaaaaaagga agacgaacaa aaggataaaa aacttaaata aacttgcaag 120
 cgaaagtcac aactcttcta aagtgatcat ctaaattcaa tt 162

<210> 5230
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-H5

<400> 5230

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 gatatggtat ctgcggtaga acatatgaaa gaagcagcac cgactgttta gcaaaaacac 180
 agcactctgc agaaaagaga aaatgtaaag tatagagtgt gcggcctgcc aaatagtaga 240
 gaagaaatcg atgaaagtga aagcgagtaa aagatgaggt atagagaatg gcggtcctaa 300
 ctgtaaggat ccaaaggtag cgaagtaaata agacgtttga aaggcgtcca gtatgaaagg 360
 agaaacgagt gtagcactgt ctagtcgtcc aactcagcga aacagcaata actgtgaaaa 420
 tgcagtaaac tagcagt 437

<210> 5231
 <211> 431
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-H6

<400> 5231

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ggtggaatca aacgctgacc aaagagcgtt gggtgattat tgggtgcagct attttaggag 120

gtttcgtttc cagaacttta tttgcaactc atgacaattc acagccacgc caaggagaca 180

aggcgcttcc aaacaggcga aaacaaagca accgtagaag caaaactact ggaaatgcta 240

cagagcaaaa gagtcctttt tgggtggccat ttaagtttta atattgttat tctagttttg 300

tcgacgaagt tccgtaatta cggaggcaag agcgtanggg tcgaagcctt gttctaacia 360

ctctatcgcc acttgtacag tttctctgtc tagtcacgtt tccaaaagtc tcgctatttc 420

gtaggaaact a 431

<210> 5232

<211> 352

<212> DNA

<213> Cyanidium caldarium

<223> ~~unsure at all n locations~~

<223> Clone ID: LIB190-059-Q1-E1-H7

<400> 5232

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atggatagaa aggtttctgt tcagttaaata ggaaaccgca aggtggaagg cgttctccgt 120

ggttatgacc agtttatgaa cattgtgttg gaagattgtg tggaaaaact aggacctatg 180

aatgataagg aaattggcac agttgttgta cgagggaata gcgttttcat ccttgaagtc 240

cttgaacgag ccacgtgacc tcgtctctct ctctctctct cttgctttct cggttagaaa 300

accaaaaaata atacatctac actgttttat tagaaaacia atnnnanaat aa 352

<210> 5233

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-H8

<400> 5233

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cgtcagccga atgaaagaag gtcaagactc catctattat attacgggtg aaagcaaaca 180
agcggttgag aattcgccct tcttagaaaa gcttcgacgc aaaggatatg aagttctctt 240
catggtggag ccgattgatg agtactgcat ccaacaactc aaggaatacg atggaaagaa 300
gctggtttgc gctacaaagg aaggtctgaa attggacgaa acagaggaag agaagaaaga 360
gaaggaggaa caaagaagt ctttcgaaca gttgtgcact gttattaagg aaattcttgg 420
agacaaagtg gagaag 436

<210> 5234

<211> 418

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A12

<400> 5234

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aaacaatttg gactcgtatc tatggctaca atatgcagtg gttgaacata gacgtggcaa 180
tgttccaagg gcgcgtgctc tgtttaagcg aggtgcagat atcaatccct ttgattgggt 240
tctgtgggag gaatggagtc atatggaagc gaaggaagga aaccaaagg aagcagaaca 300
acttgcaaaa aagagtgtca aagcaaaatt acgaagtatg ggaaataatt tgtcaagata 360
cgatcgtgag cattcttttc aaccaagtta tgtgtcataa gaaaggcagc atgaagac 418

<210> 5235

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A2

<400> 5235

tgacggtcag gaattaacgg gtcgacgcac gcgtcaggaa ttatggtgtg gttaggtggt 60

tacgcttaat gttgccatca atagtcataa caatgctctt ctaacccttt tggtttccaa 120
 tcaatttgta gaagtaaagg gatcggtagg ttgtagtatt ttccttttat acgacagttt 180
 atgtgggaat atttaggtat ttaaagcaat aagattggaa aatctatttc aaatatcatg 240
 tgcggattcc gtggagcggg ttcaattgtg tgtttttctt tctatgacat gttttcagag 300
 tcaagggaaa agcattatgc tatttatatg gtcctcatg tggtttgagg aaaccttgat 360
 tgattggatt aagcatgcct ttgtgaccaa gtttaacggc atatcctaca aagtatatca 420
 acagttttcc t 431

<210> 5236
 <211> 360
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-A5

<400> 5236
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 tatactttta cagtgtaaag catagagctg gctaacttaa cagacgtata caacagcagt 120
~~gtattgggct ttacctttct tgccttccaa gacactgctt ggaaacaatc aagagccaat 180~~
 gtcactgggtg cacttagtgc agcaaaacaa aacgtaacaa gagcaatagc gtttctagaa 240
 cgcttgatag cagcaagcac agtgaataaa acggtggagt ttagtaagct ctctagtggg 300
 acgaacgagg ttgtttcgct ggcaggttta ccgcttaatt tcacganaaa ttctactgga 360

<210> 5237
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-B1

<400> 5237
 caggaattca cgggtcgacg cacgcgtccg cggacgagtg gggccgtggg aagacgcttc 60
 gtttcttcca agggatcgat gtttctatcc tctttgtact gagtattgta tacagatata 120
 atagtgtgtg aaatacttgt gttccatgtc gtcctctatg aaatccaact tgtatgctct 180

actaccagac gacgcagaag atgccacgga aggagtcgtc agcagaacaa catcgacgag 240
 tgttgaaaag cccaaagcat cttctgcttc ctctgtggcg tcctccacca aaacaaacaa 300
 agtaaaaata ccgcatgtag acgctttgcc agtagcagaa gaagaggata caactttggc 360
 ggaagaagag aaanaggaaa acactctccg cac 393

<210> 5238
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-B12
 <400> 5238

accggttagg tattcccggc tcgacccacg cgtacgggat ttgtcgcccc gttgccgtcg 60
 cctacttggtg cttgtgaagg taccacgtga tgtccgagtt gttatggcat ctctgtgaaag 120
 gccacaacgc attccaaata agaagaaaag gagtcacgct ttcaacagag aaaggaaatt 180
 taaaggggtgt cagtactttt aaatattcgg gtcttgctca accgaaggcc gtcgacattg 240
 ctccagctac agaaactttt ggtattttgt actcgaagaa acgtaccaag aaagatgctg 300
 ctcgaaaacc ttcgagggaa tttcatactg atgtcgtgaa aaaaggcttc ctcggtctgtg 360

caaaagtcgt ttcgaaggat cttgcaaact atcgaccgga cttgaagaag cttgccattg 420
 caagaatat 429

<210> 5239
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-C10
 <400> 5239

tcccgggtgg cccacgcgt cagcagacgc gtggggtatg atgcaggcaa agaagtgacg 60
 cagtagatca gagagtaaca cagcagcggg aaaacgtgtg tagcaagcgt agagcagaag 120
 aactgggtgt aaaggtcgag tagtagagta agtgtaaaaag ggaaaggaaa ggagagaaaag 180
 aggaaaggga tgaaatgcag agatctctag agaaaggcaa gaaagaaaag aaaggaagac 240
 acagtaaagtg aggcgagaaa gcataggaag tgaaacggat taagaaccg tgtagtctat 300

gcagtaaaag aaagaatgag taagaaaaaa gggagtcatt ccaccagggg agtaaaggcg 360
 caagaaagaa acccaaagca attgacggga atcggaaaaa ggggtggatc acgtaaatta 420
 at 422

<210> 5240
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-C2
 <400> 5240

cggtcaggaa ttaccgggtc gagccacgcg tccgcccacg cgtccgcca cgcgtccgcc 60
 cacgcgtccg gaaccctgtg agtctatgca gtaaaagaaa gaatgagtaa gaaaaaaggg 120
 agtcattcca ccaggggagt aaaggcgcaa gaaagaaacc caaagcaatt gacgggaatc 180
 ggaaaaaggg gtggatcacg taaattaatc cgatttaaac cgagaacctt acctctccaa 240
 gaaggtgttg cacggctgtc gaaagaacgt gctgtgaagt gagagaacgt acgagaaagc 300
 caagtgagga aaagaaggca agtagagggc ggcccagaaa aggagagggc gtaagacgtg 360
 atacagagta ggaagaaaag agaagaga 388

<210> 5241
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-C3
 <400> 5241

cgggtcgagc cacgcgtcag cggacacgtg ggttgtgacg aggctgttcg ctggaatctg 60
 tggccccttg tcgtactctt gaacactttg tttggctctc ttttgtagt aactgttttg 120
 ttttctttaa tttgaagagc ttgggagtat aactggagtg gtttgtgggg ctacttatgt 180
 actgagcccc ttgggttttc tgttctcgaa atttgcgcc atgcgggagt tgctcaacga 240
 cagaagagtt acatgggaga atacggacgg tgatatagat gtatttgtgg agactgggta 300
 tgtgacagag gaagaagagg ctgacgttgt tgcgtcngan cgtggggtag agagtgatgt 360
 tg 362

<210> 5242
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C4

<400> 5242

tgacggtcag gaataacggg tcgacgcacg cgtcagctaa aaaaagcttt gttcgcaagt 60
 ctcgttgctt gaacagttct cctcctcctc cttcttggtt ttgtcaaac aagttgtcca 120
 ataaaacgtg ttgtgataga cgcaagtttt tgaatgattt ggtatggaca acgaaaagtg 180
 tggtggtaac aagtgcgagt tattttctcc tgggtaatac tactgcttgg gcagcgaaag 240
 aagaaaaaca aagtgtccct gcagcagttg ccaatcaagt ggagacatac aaagacttgg 300
 taaaaggtta taaaatattg cgcccgatag gttggaatca atttgctgga caacgaaacc 360
 aatatgatat caagtggcaa gatatcattc agcctttggg aatagtgatg attgctactg 420
 tggatg 426

<210> 5243
 <211> 256
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C5

<400> 5243

agcccacgcg tccgcccacg cgtccgagac gcccaaaca ggacgtccta cttgcggacc 60
 tgaggaaggt gtcggagtct tctccaacgc ttcggacttt ggtacgagca aaataaagtg 120
 tgtggaatat tggggtcgtc caggtcgcat gttccaagag tagaacgtgc gttttgtggt 180
 tgttttgtgg gtgaacaaca tttgttcttg tctgaaataa aataacagct atgctacaaa 240
 aaaaaaaaaag aagaag 256

<210> 5244
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C9

<400> 5244

cggtcaggca ttcccgggtg ccccccacgcg tccgtgaaag agcagcatga gggacctatt 60
tatacagttg attggtctca tcaaagtggc cttatcgta ctggaggtgg tgacgacgca 120
atacaaactct atcaagaaca gccttttggga aagactgaaa cacttgaaag cacaaaagaa 180
caattgcttc cgtctcgaga tatagcgtgt agtgattcag aagattccag ccgttccgaa 240
ccttttacct tggtagctac taccctcaac gcacatgaag gtgaggttaa ttgtgtgaaa 300
tggaatccac aggatgggta cgtcttcgct tcttgtggcg atgacggtgt aataaatatt 360
tggcagataa gtataaacta attctgactt tcggacaaga cgcgttggtc actagccgtt 420
gtcgttg 427

<210> 5245

<211> 386

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-060-Q1-E1-D1

<400> 5245

tcaggaatta acgggtcgag gcacgcgtcc ggaatcaggg taagaggtag aggagcaaga 60
agagaagaga gaatgctggg tggagtagcg aaacaagaga agggaagtaa aaggtaagaa 120
agaggaaagg tttacgagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat 180
agaaatccga aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta 240
ctgaagaccg acacaggtac tcgaggagaa aggagacca aattaaggtg agagaatgga 300
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 360
ccgactgttt agcanaaaca cagcac 386

<210> 5246

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-D10

<400> 5246

ttcccgggtc gcccacgcg tcagaaggaa tcgtccgagg aaacaacgca gcagacacaa 60
 gagattttctt tcgagagtat attccaagaa cctgaaaatt ttagagaaca agttcctatt 120
 ttcagataca cgagctattc tagtccaaac cgagggttttc gtttccacaa catcagactg 180
 gttggaaaac atccactatg gggtcactat ctttggaatg gagcagtttt acttgcagac 240
 attcttttcag gagaagctcc cattcctact catatacaag tagttgggtga tcgaatatta 300
 gaacttgag ctggagcagc agtgcctagt atgattgcag cgttgcgtgg agcaagttat 360
 gtgttgatca ccgattatcc tgacaaggaa ctctgggaaa acataaagta taatat 416

<210> 5247
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-D3

 <400> 5247

gggtcgagnc acgcgtcagt accatttcat catgaaatgg cacagtctcc aaaatatcca 60
 aagaaattat tcttttattg tgatgtggaa cctccacgtg gaggggaaac gccaatTTTA 120
 ttatctcatc tcgtatatca agaaatgaag caacgatgtc ccgactttgt tgcagcattg 180
 gaacaaaagg gcatcaaata tacgagaatt atgccagaag aggatgatcc ttccactccc 240
 attggaagag gatggcgatc gacgtatgcg gtgaacagtc gtgaagagtt ggagaagcgt 300
 tgtcatgaac ttggttccga attggagtgg cttgaggatg gttgtttaa ggttactaca 360
 at 362

<210> 5248
 <211> 340
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-060-Q1-E1-D5

 <400> 5248

agattggaaa gaaaattgca ggaactggaa tccaaaagta taggtagcag cagctccgag 60
 aatatcatcg tcattactgg aagtggacat cataccaaag gaaagaaaac gccagctcgt 120
 ttgtatcccg cagtcgaaca gttcttggtg tcccatcggt actcgttcca agtagtgaaa 180

gataccaaca agtatgccgg agcatttctg gtccgtcttg gcggctagtt ttatttgata 240
tattctctcca aaaacttgcg atgaaactcg ttgcgaacgg tatcgttgat aaacccttgt 300
tcattttcaa aagaaaaaaa aagaattgaa gaagaaggaa 340

<210> 5249
<211> 428
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-E3
<400> 5249

cacgcgtgca gtgcgggtcag gaattaccgg gtcgagccac gcgtcagccc aagcgtccgc 60
ggacgcgtgg gtacgacagc aattttcagt ttatcaaagc tcgagtagag gatgggtcta 120
ttggagaatt gcgcttgttt catattcatt ccagagatcc tttgcctcct ccagccgaat 180
at ttggccac tagtggtgga atatttctag atatgacaag tcatgacttt gatatggcaa 240
ggtttatcag tgggagtgaa attgaacaag tgtttgtgag tggaagagca tttgatgagg 300
aagcgaaca agcaaacgat ttggatactg tgatgattca cttacgaatg agaaatggaa 360
gtatgggcac tattgataat agtcgctggt gtagttatgg atatgatcaa cgaatagaag 420
tttttggg 428

<210> 5250
<211> 415
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-E4
<400> 5250

ggtcaggaat aacgggtcga gccacgcgtc agggttccac agacatgtcg aacgacaatc 60
agtctgataa gagcactttg aaagaagcgg aggagaagct gcagagtgca gttcactactg 120
gaacagagaa agtttctcag gtgttgagcg acgtcaagga aactgtgacg gagaaataca 180
aggaatggac agcaccaaaa agtagccaag aagaagcaaa agaaaaagca caagaagcga 240
aagaagaggc taataaagct tttaatgcta tgaaagaaag tgcgagtgcc gttcagagg 300
ctgcatcaga gaaagcagaa aaaattaagc aggagttgaa ggagtgaaga tacacagtag 360

ttttctccta tagtgttctt agtagtattt gtagtgatat ttgtctcgtg atgaa 415

<210> 5251

<211> 309

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F1

<400> 5251

cggtcaggaa ttaccgggtc gagccacgcg tcagcccaca cgtccgcca cgcgtccgca 60

cgggcaatgt ctcccaaagt aggttttacc gatgggcgac tattgctaata tgaactac 120

tccaattcac gcgcgttcac ctctcgtagg tgaccgtgca atttttgaaa ctttctaaaa 180

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240

aaaaaaaaa aaaaaagaaa aaaaaaaaca aaaaaaaaac ggagaaaaaac aaaggggggc 300

gccacaaaa 309

<210> 5252

<211> 212

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F12

<400> 5252

cccacgcgta cgaactgatt gacgatataa aaggaagaac ggaccgagtt ttacaagtcg 60

atattgctgg agtattcttc ccggccgttt ttcaaggatt ttgaagaatc ctggcctttt 120

tgcggtcaat atgttaattc caatagagca attgaggaac ggaagtacct aatttttcaa 180

tgcggtagta attccttggt tcgtaactaa tg 212

<210> 5253

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F3

<400> 5253

ggtcaggaat aacgggtcga cgcacgcgtc aggaaatgct gctgctgtct gacgagaaga 60

atggcagttg tacgataact tgcgtgtttc tcgaaagtcg atttgtatta tggagcgtta 120
 ttcaaaagaa cagtgtttgt gtgtccacta ctttaaataa tagaaactgg agaatgcaaa 180
 ataacaacga aaataactca cctaaaagat atccttttga agacgattgg agagaaaagt 240
 tgaatagaaa gatgaaacag gaaaaaatag ctcgacaagt tatgtctcaa gtgcaagagt 300
 tgagatggaa agaaagtttg gaggggtaca ttgagaacga agtggaacat attcgaaacc 360
 acgtcagtaa taattttcgt tatcatcagc cacaaattat gaacaaaggt gttgaaactg 420
 caaaa 425

<210> 5254
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-G10
 <400> 5254

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 tacgtagtgg caactccgct gtcttgaaag acataactgc aagtattgaa aagcctgaca 120
 taggatggat aactaggacg aatctcagta cttgtctgaa ttctgcagaa ggaaatgtta 180
 cggttgactt gtcgcggcag tgtancttga aggatatatt ttccttgaag cttctcgaca 240
 ataactttaa tttggcgtgt tttaatgatg ccttgttttt agttttacca ggcttaccct 300
 ttgttattac tggaaatcgt aaattctgta gacgctcgga cttgaatgaa acggaaacat 360
 tggagtcttg cttttcgttt atgaagatat gccccacg 398

<210> 5255
 <211> 323
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G11
 <400> 5255

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 taatgtcaat cccttgaatt tgttgaacca aggtttccgc tcccaggatt tggctttggc 120

cacaatatta cacctgccat gtacatttgt gggataaaac ccaaattggcc cggtgggtgta 180
 caagataaac ccctgtctcc gtaacctgct ggggtacaagt tgcgactttt ttgacgata 240
 ccctgtacaa ttttgggttt taatttaaag aacaacaacc aacctcgta cattttatgg 300
 gtaattgttt tgaatatatt ata 323

<210> 5256
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G12
 <400> 5256

cggttaggaa attccggctc gacccacgcg tacgcagacg cgtgggtcgt ttgacgttgg 60
 tgccctatta agccatcggt gaactacatc ttttatctct tgtagcacia acacaaatta 120
 aagaacaatg cgtgagggtta tttctcgaga tattgggtcaa gcagggtgttc aagtagcaaa 180
 ctcttgctgg gaactttatt gtttagagca tgggtgtcaac gctgatggaa ccattgataa 240
 aaagggaac acagcaaacg aagaagcttt tggtaccttc tttaccaga caagctcggg 300
 acgatatgtt cctcgttgtg tatttgtcga cttggaacct tctgtcgtag atgaagttcg 360
 taccggtgcc taccgccatc tctatcatcc agaacaactt atttcggcaa agaagatg 418

<210> 5257
 <211> 373
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G2
 <400> 5257

cggtcgagc cacgcgtccg gtgaaagcga gtaaaagatg aggtatagag aatggcggtc 60
 ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga 120
 aaggagaaac gagtgtagca ctgtcgagtc gtccaactca gcgaaacagc aataactgtg 180
 aaaatgcagt aaactagcag taggacggaa agaccccata attcttgact agataggttt 240
 agggaggaga gagaatcatg aagtagagga ggtggggtaa gagatgaaag accactgcat 300
 gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagtttgg ctggggaagt 360

aaagctaaga aag

373

<210> 5258

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G3

<400> 5258

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aaagtgagca atacagtctt caaggcaaca gctttaacgt tgtcgactgc tgcagtaatt 120

ggaaacctat acatattcgc aaacttgctc agcatagttt cctacagaag ttcaaagaag 180

gagctgacgg aagccagtaa tgctcaggaa aactgagaaa cacaagttgt cttcacgtct 240

ggaggatgga aatattatct gaagctaggc tgggggtctg ttccttgtag aagctctggg 300

gttttgagaa cttgcaattg ttttgttctt tgtagtaaag aaattgtctt cttttttctt 360

aag 363

<210> 5259

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G4

<400> 5259

cgggtcgacg cacgcgtccg aattcatcac gggaaaacat ttcttctgtg cgtcgaagct 60

atcatgaagt aagctttttc gattgggcag cagatgacga aagtcatcaa acctcggaag 120

caacctacca gttggctttt gaacccaatt caggaatgcc taagcgctct ccagttacga 180

ttgacaagac tagaccgaaa gatgatacta agagtttggt gaaaagacaa gatgatgtat 240

ccgaggagcg aagtatggaa caaggaggag caggtaagct acgtgggtcg agaaatcggt 300

attcatcgag atacggctct acagaaggag agcgacatag accaaacggt agacagccat 360

tt 362

<210> 5260

<211> 326

<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G6
 <400> 5260
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 cgtaaccgat gcggatgtgc gtcgctatga gatgtacgcg caaaacatcg aagctacgag 120
 aggattcggg ggtggattca agttttccga tacaccttcc tccaacaatc aaggtaacac 180
 cggtgacgag gatctctatt cgtaagagaa cggttcagga atctgtgctt tattgatgtg 240
 tggctttttg ttgaaataaa aattttgttta gtttaaaaaa aaataaattc aaaaaaaaaa 300
 aaaataaata aaatactaca acactt 326

<210> 5261
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G9
 <400> 5261

ccggttagga attcccgggt cgaccacgc gtacgcccac gcgtccgcgg acgcgtgggc 60
 cagaatggac caacgacgaa atattagaaa gagcaaaaca agtacaaaaa cttggtatcg 120
 aaagaggtct ccaatatcgt tgtgtagcca gcggtgagtt tttaagaata ggactccttc 180
 aaaaccatt tcgtgcagat attatgcaga agaaaccttt gaaagaacag agaattgtcg 240
 aaattgggtg tggttttggt atcgatgtgc gttacttgat tcggcaactg ggtgtttcca 300
 aggatcatgt cgtagctatc gatgtagctc cagcctttat tgagttggga tacgaactat 360
 ttcaagacaa ggaagcagtg gaatcttggt tccatgtaaa gagtgttggg gatgaggatt 420
 tcgtgag 427

<210> 5262
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-H11
 <400> 5262

accggttagg tattccccgc tcgacccacg cgtacgaaga ctgctctgag ttgcctcttt 60
ctctcttttcc ttatcgctgc cgcagttgca gccgacgtag tttcagagga gagatgggga 120
tatgctcagc aaacccaaca acagcaacag tgccaacaag tatgtaaaca gtagcatac 180
tatcagagtc cagtctgcac ttccgtaacc acacagagcc catactggac ccaatgctcg 240
aagactgtgc aaacctttgt cccaagccag tgcagtactt ataccaatc tcctacatgg 300
acctattgca gcacctacac caccactagc gtaccatctc aatgcagcaa ggccgtgact 360
acttatactc aaacctgctg tgcttatgcc caacaaactt cctatgcagt cagtaccgag 420
caatatgt 428

<210> 5263
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-H2
<400> 5263

gggttacggg tcgacgcacg cgtcagccca cagtcagggt tgggccttct ggtgggtgatg 60
ccctggattg agctacgtag tggcaactcc gctgtcttga aagacataac tgcaagtatt 120

gaaaagcctg acataaaatg gataactagg acgaatctca gtacttgtct gaattctgca 180
gaaggaaatg ttacggttga cttgtcgcg cagtgtagct tgaaggatat attttcattg 240
aagcttctcg acaataactt taagttggcg tgttttaatg atgccttggt tttagtttta 300
ccaggcttat cctttgttat tactggtaat cgtatattct gtagacgctc ggacttgaat 360
gaaacggaag cattggagtc ctgcttttcg tttatgaaga tatgcccacg 410

<210> 5264
<211> 381
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-A11
<400> 5264

cgaccacac gtacgaaata ttttatgccg ctagtcgaca gaagagtgtt gtgggagtg 60
acgagtgcct attcaataac tatttattat tcgccttacc aagggccttt ggaaaaatagc 120

gaacgggtat atattcacgt gggaaaagat ggttggaac atgttttggg aacatttttg 180
atgaacaagt gggatacttt cttcgaatat caagtctcgg acgtgctcta ctgtactcaa 240
ctagactttg tattttaccga tggaaaccaa atatgggata acaaccaaaa tagagattgg 300
catattgtat ggagagagca aagagtcctc aagtatttcg actgctgttc aaaccatcca 360
tcgaacactt ttggcaatga g 381

<210> 5265
<211> 303
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-A12
<400> 5265

aattcccggc tcgacccacg cgtacgaagt ttggttgttt tcttggtagc agttgtacat 60
tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag aagccacaag 120
taaacctgca gcagcagatg ctacaaagac gacagaaaag tctgggccgg aagccaagtt 180
gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgttcct gttatgtttt 240
gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga gaaaattttt 300
tat 303

<210> 5266
<211> 455
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-A4
<400> 5266

gtaccggcta cgaattccca gctcgacca cgcgtacgga tttctacgtg ggtttgcgtc 60
tcaacatgtc tttttttgaa acgtatacag tcgaccctgc tttccaacag aaactcagta 120
acaaagacaa gtaaggccaa ttgggacatg agagcacggt cgagtttacc gctgggaccc 180
tgaaaaggga gaagaaccta aattgggttac ctactcgatt cctctcaaag aatgcggtcc 240
catggtgttg gatgccttat tcaaaataga gaatgaagt gactctactt ttgtatttag 300
aaggctcgtc cgagagggaa tttgtggaag ttgtgcgatg aatatagatg gaaagaatcg 360

tctggcttgt ttaactccgt tagcacgacc caaagcagac agttactgta tatectttac 420
 cttatatgta tggtatcaaa gatttggctg tggat 455

<210> 5267
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-A8
 <400> 5267

tttctctcac ttggctttct cgtacgttct ctcacttcac agcacgttct ttcgacagcc 60
 gtgcaacacc ttcttggaga ggtgggggttc tcggtttata ctcgagtacc tgtgtcggtc 120
 ttcagtaagg cttttctctt cttttctttc ttctctctct tttcttctac tcctttcgga 180
 tttctattat gacgccgcct tagactctct tctttctact tccttctctc gtaaaccctt 240
 cctctttctt accttttact tcccttctct tgtttcgcta ctcacccag cattctctct 300
 tctcttcttg ctctctacc tcttaccctg attcggttcc tcttctaac cttttctct 360
 tctttttcgg atttcttttc tttcatgc 388

<210> 5268
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B10
 <400> 5268

aattcccggc tcgaccacg cgtacgatca tccaaacgga tgccgctatc aaccctggca 60
 actcaggagg accgctattg gattctcgag gaagactgat tggcgtcaat tgtgcaatag 120
 cttcaccttc aggagcgttt gctggatatag gttttgctat tcctgtggat accgtgaaga 180
 aagtagtgga acaaattatg cagtttggtc gagccattcg accttcgttg ggaatctttt 240
 ttgccccgga acaacttgga agaagggttg gtttgagaa aggtcttttg attctttatt 300
 tgcgacccaa tgggcctgca gagaaagctg gtttattggc aaggaagaga gaaaaaggtt 360
 caggacgatt gatcctggga gatatcgtca ttggtataga gaagcagcca gtgaa 415

<210> 5269

<211> 420
 <212> DNA
 <213> *Cyanidium caldarium*

 <223> Clone ID: LIB190-061-Q1-E1-B11

 <400> 5269

 aattcccggc tcgacccacg cgtacgccc a cgcgtccgag aagcgttggc tgttgcataa 60
 agagctatgt cggaagagtc agacaacgaa ggcgtggaga tcaagttaga gactgcacct 120
 catgatcctc gcttccggac tactaatcaa gccaaagcact gttggtcgag atacatcgag 180
 tatcacgctt gtgtgaaaca aaaaggtgaa gaggacagcg agtgtcaaaa gtttaagcga 240
 tgggtacaagt cactgtgtcc tatggaatgg gtagaaaact gggacgaaca gcgtgccaac 300
 ggtacctttc ctgggtcccg ttagttgtac tgttccacgt gggccctttt ggagtttaac 360
 tgacctgttg tcggtattgt ccgtatggct tttttgttc aataaagttt tatgtggtag 420

<210> 5270
 <211> 251
 <212> DNA
 <213> *Cyanidium caldarium*

 <223> Clone ID: LIB190-061-Q1-E1-B12

<400> 5270

 aattcccggc tcgacccacg cgtacgcgga cgcgtgggca agcgtagagc agaagaactg 60
 ggtgtaaaagg tcgagtagta gagtaagtgt aaaagggaaa ggaaaggaga gaaagaggaa 120
 agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 180
 aaatgaggcg agaaagcata cgaagtgaaa cggattagga acccgtgtag tctatgcagt 240
 aaaagaaaaa t 251

<210> 5271
 <211> 264
 <212> DNA
 <213> *Cyanidium caldarium*

 <223> Clone ID: LIB190-061-Q1-E1-B5

<400> 5271

 caaccacgc gtacgaacat catcaaagc caaagggagg aaagaaagat tcttcaaaga 60

aagaagccac aagtaaacct gcagcagcag atgctacaaa gacgacagaa aagtctgggg 120
 gggaagccaa gttgaaggga actgggtgcaa agaaacaata aaaagttgac tatgcatgtg 180
 cagtccgtgtt atgtttttgtg agttctgttt gatagtttcc agctattctt ttggtagtga 240
 ataaagagaa aattttttat attt 264

<210> 5272
 <211> 255
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B6
 <400> 5272

attcccgctct cgaaccacgc gtacgggtatg acgcattcat tggatagcaa acaattactt 60
 gtacgttgta gcgacagtca tcgaaagcga cactttggaa ataatggaaa gttgtgtcta 120
 tggcacacgc agaacggggac atcttccaca atgttgcccta gtatacaact tcaacatcat 180
 aaatattcac ctcaatacgg aattttttca atctatccag atcctatatt accaccacgt 240
 ccacttgggg ttcca 255

<210> 5273
 <211> 271
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B9
 <400> 5273

cccggctcga cccacgacgt acgattgaaa atgtcaagtc gaagatacaa gacaaggaag 60
 gtattccccc agaccagcaa cgtttgattt ttgcaggtaa acagttggaa gatggtcgca 120
 ctctctcaga ctacaacatt caaaaggagt ctactcttca cttggtgttg cgtttgagag 180
 gtggctgtta gtgagtttat cctgaagttg ttttctgct agttgtttgt ggtttgaata 240
 aaaatttgtt tgtggaaatt ttgattcgta a 271

<210> 5274
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C11

<400> 5274

aattcccggc tcgacccacg cgtacgagag aagaaagaaa agaagagaaa agccgtactg 60
aagaccgaca caggtactcg aggagaaagg agacccaaat taaggtagaga gaatggacga 120
taaggaacta ggcaaaagga tatggtatct gcggtagaac atatgaaaga agcagcaccg 180
actgttttagc aaaaacacag cactctgcag aaaagagaaa atgtaaagta tagagtgtgc 240
ggcctgccaa atagtagaga agaaatcgat gaaagtgaaa gcgagtaaaa gatgagggtat 300
agagaatggc ggtcctaacg gtaaggatcc aaaggtagcg aagtaaatac acgtttgaaa 360
ggcgtccagt atgaaaggag aaacgagtgt agcactgtct agtcgtccaa ctcagcgaaa 420
cag 423

<210> 5275

<211> 322

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C12

<400> 5275

gtacagctac gaattccggg ctcgacccac gcgtacggtc tttgtgaatc tcaggcaaca 60
ctgacgtatt cttagcctct ttttgttttt cctagtcatt tctttgtcag gtgtagaact 120
ttgttgaaca tacatatgcc tgattggggg tttatatcgc cttttgttgc caaggaaaca 180
ttcagagctc agcacgcacc tggttcctct ctttttgttt caaattgttg ctcctataga 240
ctgagaagca atcgatttgc ttcattgagt gacagcagag ttagaagact atgattgagt 300
gtttacatgg gaaaggtttt cg 322

<210> 5276

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C5

<400> 5276

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cttggaaatgg gaatacctga tatgtggatt gatctagtga ccaatthttcg agatgaagat 120
 tgggatatgg gaagaatgggt gtatgggggtg accaacacaa gatggaacga atatactggt 180
 ggatatgtac aaagtcacga tcaggctctc gttggagaca agaccttggc atttcgattg 240
 atggatgccg agatgtacga caagatgtcg atatttattt ctccaaccga tcgaattggt 300
 cgtggaattg ctttacacaa aatgattcgc cttataacgt atgctttggg aggtgaagcc 360
 tatctcactt tta 373

<210> 5277
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-C6
 <400> 5277

taccggctaa cgaattcccg gctcgacca cgcgtacgc cacgcgtccg acttttgaca 60
 actttcctgg ttacatgaag tcttatatag atgtaggaca aaaagtacta agcaggcgca 120
 gtcaccaag tcgaagtctt gggaaacggg gaaaatctga agaaacttga gagttgaatg 180
 tcgatgtata gacggccact aacggccacg acggtccgca gtctcgtaaa gaaatagctc 240
 actacttgta tgaattgac acctattaga tacactggaa tgaacagtct tttagttgtg 300
 ttctcgaacc cgagtaccga gcaattattg attgaaaaag tcctcaggta atggctacac 360
 caaagcttcg tttgttagac caagaaaccc 390

<210> 5278
 <211> 192
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-C7
 <400> 5278

cccacgcgtc cgcccacgca tccgaaaacg tcatgcagta gcctatacct tctgctgcag 60
 tcaaaacaga gtacgtggac cagggaagt tggtatagac cctgtaagac atacaacaag 120
 tcctcatgac acttgacgtt ctggtgtagg aatagatct tgctaccgag tagttactac 180
 tgcagataca tt 192

<210> 5279
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-061-Q1-E1-C8

 <400> 5279

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 ccatcgatcat cgagtagaga tagaatacga acctctttat agagagtttg gtttaggtac 120
 gacgatttgg tcacctttgg gctgnggtat attatccgga aaatacagtg ggaagaatat 180
 tcccgaaggt tcaagattat ctctggagaa gtacaagtg ctgaaagata ctgcattttc 240
 agaaagagag tggcaaattg aaaagacgga tcagttaaag ccaatagctc aagaactggg 300
 ttgtagtgtg gctcagctgg ccatagcttg gtgtgcagcc aatcctaacg tctccaccgt 360
 tatcacagga gctactacgt tggaacagct ggaagaaaat ttcaaggcag tgagtattgt 420
 tcctaaattg acacccgaag tcatgagc 448

<210> 5280
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-C9

 <400> 5280

aattcccggc tcgacccacg cgtacggcct tgtcagtcac caagtcggat agaaaagttt 60
 tgactgcaat tagtatggac actttttcta atactaataa tagtactaat aataatggtg 120
 acgatacggg ggaagtgact ttggagtttg accagcaact caacgacgat gaagtagaca 180
 cgagtccaca acgttcaacg cctcctcagc gttttcaccg ggaaaagact cttcactcgg 240
 tttcttctcc tactagagaa ggatatagta caggggttgca tatttggttt cccgataaaa 300
 ttctttcttc tcgtcacgag gcaggagaat actctagtta tacgctggac gacaaaagtg 360
 tgcagtcacc tctgttacat cctcctc 387

<210> 5281
 <211> 420

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D11

<400> 5281

aattccgggc tcgacccacg cgtacgaaag gaaaggagag aaagagtgga agaacaatgaa 60
 agcacagaag aatgtaagaa atgggtagag taaaaacat aaaggaagta aaagcgggaa 120
 tctgagagga ggaaagccag attggaactg agaaaaggctc caaacaagag aagtcagcag 180
 tggggaaaat tgggcaatgt acaggggaagt atgaccagc aatgaggagt ggagtaaaca 240
 gaaaaggaag taaaaggagg gaatgaaggg aagttatggc aaaaacacgt gccagcagca 300
 gcggtaaaac gtgtgtagca agcgtagagc agaagaactg ggtgtaaagg tcgagtagta 360
 gagtaagtgt aaaagggaaa ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc 420

<210> 5282
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D12

<400> 5282

ggtaccagtc acgaattccc ggctcgaccc acgcgtacgc ccacgcgtcc gccacgcgt 60
 ccgagagggtt ttaccaagtc tgattacctg gttgacgctt tattacgtag tcacactgaa 120
 ggtgagagac aaaggggttc tagagaacaa gaaaatactt cacagtatgg gtcaggtcgg 180
 aatggaatgg aaccttcttt tgcagataaa tatgaggttc cagtacatat tcaagacaac 240
 gattcctcac cggattctgg tgaagaatca ggaaaggaac cacatgttat tcctcgccag 300
 caagtgaaag attcagagtt ttcaagactt ggacagcaat tatctgaaag agcttggggc 360
 tctttgaagg ctttgctctt ttcattcttc tccatggacg ttgcacagta ttattttcgt 420
 gaatatctac 430

<210> 5283
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D9

<400> 5283

aattccgggc tcgacccacg acgtacgcc acgcgtccgc atggaacgta tcatgaaggc 60
acaagctttg cgtgattcgt ccttggcaat gtacatgtca tcgagaaaga tgatggaaat 120
ttatccgaag agtgccaggg tgcaagaatt gcgtcaccgt gtggaagcag ataagtcaga 180
caagaccgtg aaagacctgg tcaattgatt atttgacact gcattgttga cttccggatt 240
ctctcttgac gatcccaacg tttttgcctc tcgtactcat cgcataaata agttcggctc 300
tagctttgac gaagatgaag tcaactgaaa gatggaggaa gatttaccac ctcgcgatga 360
ccgagcaaga aggaacatct gcaatggatg atctacacta gcccttggac t 411

<210> 5284

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E10

<400> 5284

gtaccagtca ggaattcccc gctcgaccca cgcgtacgca agaatggttt ttctctcgta 60
tttgctgcag tggctgcagt ggctttgctc gtttctcttc ggaatagaaa gcgtcgaaat 120
actcaacaga ctagtgtgtt ttccgaacgag gcaatgaacg aaactttttg ttttgaatat 180
tctgtaggaa acaagtcttc tgtctcttca ggttcctatg caactacgac aagaaatacg 240
ggaggagac taaagattat atttcgtggt gttactcgag tgactttagg aacagacttg 300
gagaagagtt gtatatctcg acgagtttct tctttaggtg aaggggaaaa agtacaaata 360
gaccctgaca agttacatgg gttgatgcag ctctatctc tttttgaagt tttcttgatt 420
ataaga 426

<210> 5285

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E11

<400> 5285

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acagcaatTT ttagagcctt ctgtttggtt ggagttttca ccactatcat ccttgtgtga 120
cgctatcaac ttgggtcaag gctttcctga gtggaagcca cccaagtttg taacggaagc 180
tgcacgaaa gctacgagcg acccaagttg gagtcagtat gcacgttcga gtggtttaca 240
gtcttttgta tcgactatta gtaaaactta tgcgcctctg ttgcaaagga ccattgaccc 300
ttttaaagaa gtttgtgtga ctgtgggagc atcggaagct atctttctag cttgtcagtc 360
tttggtagaa cctggagacg aggtcatctt tgtggaacct gcattcgata tatatttcgg 420
tgctgtaat 429

<210> 5286
<211> 380
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E12
<400> 5286

gaattcccg gtcgaccac gcgtacgggt aaacatggc cgcttcaaga tgagacagtt 60
gcaaagattg ccaagaaaca tggaaggaca cctgctcagg tattgatccg atgggtgtcta 120
caacgtgggt gttccgtgat tccaaagagc gtaaagaaag aacgtatcaa ggaaaacttt 180
gatgttttat tcgaattgag tccacaggat atgaaggaat tggaagcctt agataagaac 240
ataatcctca atcatcaaaa ggaatattgg ggtttcaata ttcacgcttg agagagtctt 300
tgtcgtacaa taaacaaatt tcttgttgtt gctggcaaaa aaaaaagaat agggaagaga 360
caagaaaagt aaataggaag 380

<210> 5287
<211> 282
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E5
<400> 5287

taccggctac gaattcccg ctcgaccac gcgtacgcca caacatgcaa caagacgagg 60
atgtggaatg ctttccgatt cagtcacaaa cgactagtct caaacgcaat aaactaatca 120
acgatccagt tcagggacag gtggagttgc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180

aaaaaaaaa aaaaaaaaaa aacaaacaaa aataaaaaag aaaaaaaaaa aaaaaaaaaac 240
cacagaaaaa aaaaaaaaaag gggggccacc ggggaggaat cc 282

<210> 5288
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E7
<400> 5288

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ggaagaggcc atccctgcga atcttcgatt ggtgtgcttt gcgttcgttg cctcgtgccg 120
tattgaaaca aaaactctgt gttgttttcg tgctgggaga ctactttttt tcgttgctgt 180
agttgttcta gtgaaactca tagatggcag ctgtgctttt tgaagacgtt ttttctgtag 240
cagaggttga tatggtaaag gaccccaagg atccttctcg caagataaag gaaaagaagt 300
ttgacaaaagt ttccaggata ttatgtcacg gagaaaatta tcaaaccgaa ctcttgctgg 360
acataaatag cgaaatttat cctattcaag agaacgaaaa gtttgagatg gttttagcgc 420
ccacactttc gttagacggg cgac 444

<210> 5289
<211> 367
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E8
<400> 5289

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taccttgcta agctgtttat tcctactgat ctttctacac acaccaacaa ctacatacat 120
gtattgcgtg cgagaagccg ggagcgggag atatttatgc taccatatcc aaagaagagc 180
tatactctcc acttgcttac aatcttctat aagaaactaa accttttcgt caccctgatt 240
caacaacggt tgctgatgct ccgtcccgta acccttggtg caaacaccaa cagtattgct 300
aaaacttaca gactcacggg tttctgcaaa atccactcgg gtggaaagga tttccatgaa 360
ccccact 367

<210> 5290
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-061-Q1-E1-E9

 <400> 5290

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 tggcacatat gaagcagctt ttagccgtta caaaagctac cacttgaaga aagagtgttc 120
 tataaaagca agatacgggtg caactacctc gtcacctact cttagaagtc tgttgactt 180
 gagaaatana atggaagaaa gagacccaca tgataagagt ttcttctcaa ggctttttca 240
 ctcaagcctt agattttgta gacgatgtgg aaaagcattc gtagcagctg taccaattat 300
 cccaccccaa cttgtagaga aaagtccctgg tgtatagtgg aacaagtttt tgttcgaaga 360
 tataatgctt gctaacacaa agtttgatag atatgtcctt ccagatattg caat 414

<210> 5291
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-F10

 <400> 5291

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 caaaaagagt ctgccgtata cgaaactaac cgaataataa gtttgcttga aaaattgttt 120
 gatactgctt taactcgcggtt ttccttttga cttataagaa gtgtgaagca ctaatttata 180
 agaattgtgt tatttggaag aaactttatc cataacgcaa aaaaatggag attggactct 240
 gtaaaagtac tctttgtaga ttttgaaata cagaaacaat cgcacgcggac atatgttgca 300
 tttgatgcag attttgatgc cgatcaaagt ttcagtaaag aattgtcgtg cactatttcc 360
 aattattgca taggataagt taa 383

<210> 5292
 <211> 412
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-061-Q1-E1-F12

<400> 5292

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actttttgggt gcaatgctca agcgcttatg ttggaatgac atagcggatt attaaaaaaa 120
atcctccgga tattaaggag aataaccaat ttataaacca ccaaattaaa atttccaagg 180
acaaaaggta accccaatcc taacaagggtg aaaccaataa taatccaatt caaaaaaatc 240
ccatctctaa ggaacagaaa gaagacctgc ctgctcaaac tcgaacaaaa cgcacacaaa 300
gacattccac tggaacacaa tgttacagtg ctagtaaaaa gacacgaata gtctccccta 360
ccatacacga tatttgtgaa ccatttgga ttgtcttcag agaaagaaaa ag 412

<210> 5293

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F3

<400> 5293

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ggaagcaagc tagaaccgtg tgaccaggga atggagtcaa ctcaagtgaat gcaagcacia 180
gaataggcga agattactct gttttacttg ccttggtcag tcgtcgttat ccgacaacta 240
tggttatatt gagcaagaac acaattattt tcagcaagtg ccgaccaagt ggaaggaatt 300
ggtaaaggat gttcatcggt gttttgttat tgcttgata cctggaaaga aaccttatac 360
ggtggcactg tcggacttta tctacgcaac agcaagttgt tttaacaacg gtataccttt 420
ggaactattg aaagattcgc tgaaa 445

<210> 5294

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F4

<400> 5294

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gctatttcga tatctgtgga ttaggcggac gtttggaagc tgctttgaat tgcttgcggg 180
agatgagtcg cgatccccag ttaccttttc atattcctcg aactcgaggt tgtttctatc 240
gagcatgggc acgatataat gtagaaaaag gcacttgttt aggaggaata gaagaagcat 300
tgcaagatat gaaatcttgt caagtacctt ggaacgagcc atgtgtgttg gcagctatct 360
gtatgtattc cgagttggga tatccacaac caagcgttgg atatgttgcc gccggcgggt 420
gtcgaacgct tttggttacc tat 443

<210> 5295

<211> 326

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F5

<400> 5295

taccggctca cgaattccgg gctcgacca cgcctacgcc cagcgtccg gtgtgtgtat 60
gtctgggaat agagacattg ataccgaaa cccttatacc tctgtaagta taaagactac 120
atcccaacca actggcaccg gggccaaagg ataatgtaaa aacattctac cttatatcag 180
aggtatagct actcttagat tgggtgattg tttggccaca gtaatccaca accaacatac 240
aggtgacatt agaactacag cactaccagg gtcatcaact aaccaacaca ttgaaacgct 300
gtctaaaggt atataaacgg ttatac 326

<210> 5296

<211> 420

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F6

<400> 5296

taccggctac cgaattcccg gctcgacca cgcgtacggg ttggacggag caagcaagaa 60
gaatgtgggt gttggtctag aagtactaat aatagtgggt gagacatcgt tgtgaagata 120

gtttttcaat tccgttgtga ggagtttagg agatttgttg ttggaaaaca tatgagacag 180
 tggatacaac tagtaacgag gtgttggcac ttgaggaggg tcaaggtccc acccaactcc 240
 ttgccgtgga gcagtacaga agtgccttgg agtcgtcgtt tttgggataa caaccttgca 300
 tttttatcta cgataaacta ctctcaaagc attgttgtgc ctcaattcaa taaacttgtg 360
 gaaacgagtg aacatcggtt ggacgagttt ccaggtgtca tccagtctcc ataactgggg 420

<210> 5297
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-F7
 <400> 5297

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 ttgcgtgcca agaattatga agaagctgct cgtctcgtct ctttggtgga gccattggaa 120
 cgtaccagtg ttagggatg gcaaacctat gctcagatag aaagtgtca gggtcatttg 180
 gaacaagcct atcattacta tttgaaggct cttgagttgg atcccaacaa tgtactagtt 240
 atcgaatgtc tggcagaatt ggaagcgaaa aacggtaatg cttatgaacc aaggagtatt 300
 tttagaaaag ctattga 317

<210> 5298
 <211> 400
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-F9
 <400> 5298

gtaccagtag ggaattcccc gctcgaccca cgcgtacgaa tcagacgagg ataccgctg 60
 aacttaagca tatcattaag cggaggaaaa gaaggcaagt agagggcggc ccgagaaagg 120
 agagggcgta agacgtgata cagagtagga ggaaaagaga agagagctag aaaggaggta 180
 aaagaagagt aaaaggacta gaagaggtag ggaattcacg aggaaggagc gtgaaggaag 240
 gaggaatccc aagtaatcga ggaagaaaaa gcttcggtga aagcgtgaac ggattttgta 300
 cacactgccc gtcaagttct ggaagtgtgc taggaataag caggagaagt agaagagagt 360

aggaaaagaa gaaaggaagt gaagacgtaa gacgtgaaaa

400

<210> 5299

<211> 333

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G1

<400> 5299

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cgtcctttgc aaaaatcagc atacttttgc gtccataata atgcgcaaac caagactat 120

cggcaagagc taaaacaagg gcaccaacaa tcagtgtaac aaaccctcga atggtttcga 180

ctatatacaa attagaatga aaacattcaa tcaacagacc gttccaagta aacacacaca 240

ctagaaagcg ctgatacaca aaatgcgcca aaaacgacaa atagtcctgt ttcactttcc 300

cctgaaagct tttctgtcaa ttttgtccca tga 333

<210> 5300

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G10

<400> 5300

gaattcccgg ctcgacccac gcgtacgccc acgcgtccgc gtcacgagag aaagagcgag 60

agaggttatg ggagacggag ggataggtaa gtaaatacga ggcgacctgg tttttttttc 120

catcccacgt tggtagcggt tgtatgtaca ctcgttgggt gtattgcatt gttgtggttt 180

ctattacaac tggctattgc caatccgcaa tatcgtagtt ggaaaaaaga gtggatagct 240

atcgttgttg cgtcgatagg tttgggagaa ggattgctat ttatgttgat atacagtgga 300

caaagtttat gaactagggg tggttttccc tggtagttga ggacaggtga aatattttcc 360

tggttgcttg tctcactcgt cgagcccctt gttgtaataa attgccgcta gcct 414

<210> 5301

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G12

<400> 5301

gaattcccg c gtcgaccac gcgtacgcct gctcctccac ctatggatta tattaagaat 60
tctggaggtc ttcacaatga tatggcaatt catgactttg atatcgacg ttttatgacg 120
ggaagtgagt gtgaagagat tactgcttat ggagcttgtc gtgtggatcc aaaaatagct 180
tcagaaggaa acgatatcga tactgccatt acgcttctca agtttaagaa tggtgctttt 240
tgtacgattg acaattgtcg tcaatcacct tcgggatatg atcaacgagt ggaagttttt 300
ggttccaaag gcttcgttcg ttttggaac aactttccca ataatgtctt tattgaagat 360
gcgcagtcgg ttcgaagaag tgatcttccc tttaacttct ttatggatcg tta 413

<210> 5302

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G3

<400> 5302

aattcccagc tgcacccgcg cgtcagccca cgcgategga aagaggcaaa tacgggaaag 60
cagtaaaaga agaaagagaa agggaaaaaac tgagtatcag gaagaaaaga gggagtagat 120
gaggaaagaa agatcaagga ggtaagagtg agagaaggag taatgtgaat gaaagcagga 180
aagtatttga agaagagagt gtaaagcgcg taccttttgc ataatgtccc agcgagtgaa 240
agaggaagca aaaagaaaga aaaagcccag aagccaagat aaggtatcaa agtaaagaaa 300
gaaggaaaag gagaagaaga gagggtaggc ttagaagcag caaaccagag aggaaagcgt 360
taaagcaatg aaagaaaaga aatccgaaaa agaagagaac aaggttaagaa agaggaccga 420
atcagggtaa gacgtagagg agcaagaag 449

<210> 5303

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G4

<400> 5303

gaattcccag ctcgacccgc gcgtcagccc acgcatccg atggagtcca atgcacaaga 60
gcgcccactt gtctttgtga caagacaaga aagtttctca gcagctcata gactgaatag 120
ttcgaagctg acggaagagg agaatgtggc tatttatgga aagtgtaca acgaacactt 180
tcacggacac aacgttgtat actgtgaaag taaccattcg ggggccagta catccagata 240
ctgggatggg agtgaacctt agttcggtga aggaagccat aagagaactc attgtggagc 300
cttttgatca caagaatttg gacttggatg ttttgaatt ctgcaaatta ggtattccta 360
gcactatgga gaatctagtt tgtatcatat ggaagaaatt attcagtcgg ttcaaggact 420
tgctttacga cgtagttgta caggaaa 447

<210> 5304
<211> 389
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-G5
<400> 5304

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~~ggattttagt aaagaagaat gggaaaaaaaa gttgtctcaa gtacaagtgg ataggaggga 120~~
cctcaacttg ttggtgatca acggggctcg gatggaaggg tacaaggatg ctgcagaaaa 180
gttctccgaa gaaacgggat tggatcctgg tgtggaccta aatactatac cagacagaat 240
ggctattcga actgctgtgc aacaaggaga tatccacaaa gctagcgaat tggtaacga 300
cgtcagccct ttgatattgg actccaatcc ttgtctgttc tttcatctgc aactgcacat 360
actaatagag cttattcgac agggaaata 389

<210> 5305
<211> 438
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-G7
<400> 5305

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gtcaaaagga gatagtgaac tatgtcataa gctatttgtt gaaaatccta gtgctctgac 120

aaccctacaa cgccatatgc gcgcccagga gtttcctgcc gaatatttgg acttggcacg 180
aaaggttttc catgacttat caggcaatac aatttcaaac caaggagaag gcgaacgaac 240
agtcttccaa ttacaaattg cacttgcttt tctaaagctt gagctgcaac tgccaaagtg 300
gtattttgaa aggcggcagt tggaggcgac tttttcgatt gttatcaatg aactgctgag 360
taactcaaca actatcgttc gcattctgac acggggaaac gctgtgcaag agcaacaaca 420
ttgtacatta tgtgaatc 438

<210> 5306
<211> 429
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-G8
<400> 5306

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ctatttcaag gctcttcaga gacattagat atttcttatg tattcttgtc aggtattagt 120
gccggatgtt tagcgtgcgg tattatccac tcctatggat gtgatcaaga ctgcactcca 180
atctgccaat tctccttata gaggtattat cgattgtttt gttcggacat tgcgagaaga 240
aggattgggc aaattctttt caggttctat tgcaagagct tgtattgtat ctcttttatt 300
cggaattgct ctcttggttt atgaaattca aaaaagattg gcgtcttcat tggacaacta 360
gatctgcaca actacaatcc acacatacga tacagccatc atctctaca gatattacac 420
gagtggaat 429

<210> 5307
<211> 384
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-G9
<400> 5307

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ggcacgagat tgaaagggtca aaagttttct gttggttctg gttctaccca cgctttgggt 120
gtgttggaac aagggttagca gtggaatatt tccgtggaag aggcctgtga acttgaaga 180

cgttccatct atcacgctac tcaccgagac gcatttagcg gaggctatat taatgtgtat 240
 tatatcggtc ctgatggttg gaaatttata agtcatgagg atagtggatt cgataagcat 300
 tatcaatagc ccacagaaaa agccacgcaa caacaacaac aaatgagcat atcttgaaat 360
 aaatttcacc gtttcttttt gcat 384

<210> 5308
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H11
 <400> 5308

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 tggcaaaaac acgtgccagc agcaacggta atacgtgtgt aacagacgta gagcagaaga 120
 acggggtgta aaggctcagc aatagagtaa gtgtagaagg gaaatgaaac gagagaaaaga 180
 ggagagggat gagatgcata gatctctaga gaaaggcatg aaagagaata atggaagaca 240
 cagtaaatga tgcgagaaaag catatgaagt gaaacggatt atgaaccctg gtattctatg 300
 cagtaaaaaga aagaatgagt aagaaacaag ggagtcattc caccagggga gtaaaggcgc 360
 aagaaagaaa ctcagagcaa ttgacgggaa tcggaaaaag ggggtggatca cgtaaattaa 420
 tc 422

<210> 5309
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H4
 <400> 5309

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 caagatattt atcctgtgaa catgcgcaag gaagaagatg aaggaacctt gtttgggaga 120
 tgtccagatg atatttatga tggctatact agtaacgttc caggaaatcc gtggattcta 180
 tgtacttttag gaatggcgca atattattat gagttggcag cagagtgggt gaaacatgaa 240
 aagattgtca taggaaaagt gagcaaagac tttttcagac atttgagggt tatgcctcct 300

ccttctcctc ctcaatcttc tatatcgacg accattactg gaaaagccga ttggtattta 360
 tgtttctgcg ctattagaag aaggagatcg cgtattgaat gctattcgaa agcatacagt 420
 tcctag 426

<210> 5310
 <211> 332
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H5
 <400> 5310

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 caattgtttg gatgtcattc gatatttttag tactcacttg tatgcttcat aaatacactt 120
 gatgcctaag cttttggcaa aacaaaaaaaa aaaaaaata aataaaaaaaaa aaaatatata 180
 aaaaaaaaa caaaaaaaaa aaaaaaataa aaattaaaaa aaaaaaaaaat aaataaaaaa 240
 aaaataaaaa aaaaaagggg ggccccccaa aaggatcaaa tcttattaac ccttcaatgc 300
 aacttaataa cccttcaaaa atttcaccaa aa 332

<210> 5311
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H6
 <400> 5311

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 ttgcctgaac ccatcaaaca aagtattgtg ggtgctgctc ttggaagttt atttgccaac 120
 gcactttgtg gtttcagtcg ttgttttgaa gccacaaag gacgtaacgg tgctctcatt 180
 tctctgctac gcagtcgttt ctttattgct acttgattg cttggctcta tttgaacgat 240
 gtttgtgtgg gaaaagaaga atctgtttcc actttattac ccagttgtcc acttggcaag 300
 aactttgatc acaactttgt ttgggcactt gtattagtag tcatcaacgt attacgtgca 360
 aaaggtgcac 370

<210> 5312
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H7

 <400> 5312

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 tgggaaaagt atcgggtacaa catcctttgt atgaggttca aaagaatacc gcagaatatg 120
 agataagaga gtacgggagc ttaagaatag ctgaagttca tccttcagac tggactcaag 180
 aagagaatgg ctcggcatac gactttgact cgcaagcatt tcgagtgttg gcgtcctaca 240
 ttggtgtgtt tggagaagcc aaacacacag atagctccaa cacgcaagtt aagatagcaa 300
 tgacagcacc tgttttatca cagcccatag ggtccgtgga aa 342

<210> 5313
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H8

 <400> 5313

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 ttcattgtag aaagctggag taagcaatca tgagtggagc tctgtgtatg aaggactcgc 180
 cctgtttcat atgggaacta tacctgacaa acgcggaaat attcatgttt ttgatcttcg 240
 aatgatggtc tctggctcgg aggatggatt taaagttgta ggactatatg cgagacgggc 300
 caagaaacct ctttcaaaac agctcgaaga tggaatgaac tcttgggaca tgtaggaac 360
 gaacctcagt attaaaatgg atgatggaaa ctttggaagc gaaccgaaa gattgctgtt 420
 gatggattca agagatttca at 442

<210> 5314
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H9

<400> 5314

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aagccctcct tttgggtccgt tttgaaggat tccataggaa aggatctttc caagatatcc 120
atgccagtaa cctttaatga acctaaatcc tttttacaaa ggatggcgga agatgtggaa 180
tacagcgaat tgctggataa agcagttact ttagaggatg agtttgatcg actgttatat 240
gtgagcgcca tggctgtaag tcattatagt tctactgtgg gtcgaaccgg aaaacctttc 300
aatccaatcc taggcgagac gtatgaattg tttcttcag agaagaattt gcgctttgtt 360
agcgaacaag ttagtcatca tccacctata agtgcttccc atgca 405

<210> 5315

<211> 211

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-062-Q1-E1-A11

<400> 5315

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aagaggaagc gaaacgtctt cgaacgctgt ggatgtgaaa aaggaagtag caacaaaagg 120
aataattttt gttggtcatg tccataaaag ctataattcc aatagcaact gtactcaatt 180
tcgatgaagc aaaataaacc actttttaat g 211

<210> 5316

<211> 215

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A12

<400> 5316

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tgaaaaaat aaaaaaggaa aaaaaaaaaa 120
ataaaaaaac gggcgggccgc ccaagatgga tccaaagctt aacgttcctt gcatgccact 180
tcacagctcg tcaaaagcgt cacctaattt caatt 215

<210> 5317
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-062-Q1-E1-A5
 <400> 5317

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 atcgcaggtt atttggaat atgtttgcac gtttaggaca aattgaagac gatattcata 120
 agaaatcaaa cgaagaaacc aaggccaaag aaatcactgc ctcttaatga gctcaacttt 180
 ttttatttgc agttaccata taaagaggat ctaacatgct gttttagttt tacaacagag 240
 tactttgggc agttacctgt gataccaaaa ttgggactca agtcgtacgc tcttgagta 300
 gtaaaccattc cactagtgtc cggttatatt cgtgctttcc atctatatat aagttacttg 360
 cctataatgg aaaaaacttc caacaatata tactcgttgc tataaaatac ttttatgaac 420
 attcttcgtc c 431

<210> 5318
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-062-Q1-E1-A7
 <400> 5318

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 tatatagtcg atggaaatgt gatattggga gataggaatc catccaccaa gcatcatctt 120
 attgcatcgt gtgagaattg ggatgatgca ataagagaac agtctgttta tcgagttggg 180
 aaacgaatga atcaaatagc agcagaatat gaaatatttc aaatggaaac ggaagcaacc 240
 gttggattat ttcatgcat ggagttgcat cttgtggaca ttatccaagc aactcgacaa 300
 caacaataac taggaggagg aacaagaagt agcaatatat atcgaccatg gaccaataga 360
 ttgactactc gtgacctttt tcgtttgacg gaatatgctc aagatatatt ggg 413

<210> 5319
 <211> 443
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A9

<400> 5319

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aaccagtggc atagacaacg atatccaatt gtggacgccg agttctcgtc ccaatgtatt 120
gagtgaatat gatatggata agcgagtgaa taagaatatg gaaaagttga atgaaattct 180
caaaagaccg cattccgctg gcaatagtcc agaagtaaga tatttgctg ttccttatcg 240
tttgtactgc taatgttgag ttgcaataga cttttgctca tgtcattcag aacttgatga 300
gactagagta tcttcgacct caagattatg aagcagggtg cactattcta tagtcagtga 360
acatttatga cttgtggtat caagtgcag aattatatta tgagaaaaaa gattttccag 420
ataaaggatg attatatttt tag 443

<210> 5320

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B4

<400> 5320

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acgaagcttt ttgaccaata tataaatact tataaagagt cagggtggtg tatagaccag 120
cagaacttgc aaataataag agtggtgggt aatggcgcaa gtgggacaac ttacgaagga 180
aagtatcgag atataaaagt tgcagtgaag gcttattctg caaagatatt aaaggaggat 240
tttgaagcg ttcgtaacga aatggagctt ctggcacact tgtcacaccc taatattatt 300
aagttttatg gtatttggtt tatgacaaac cccttcgctg cttgcctcgt aacagaactt 360
gccccaaacg gagaacttgg caaggcgcta tatccagat ctggtataaa catcttttca 420
aagct 425

<210> 5321

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B6

<400> 5321

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ttacttatag acgatttggg aaaattggag cccgtgtggt ggcatggtag cagcttcggt 120
agagtgtgtc gaacgccgat ggaatgttga gtcgcaagca tttccacgaa agcctacaca 180
tcaatccatg cggaattgga gtggcgggtc gctttaccca ctacaccaca ctacactgtg 240
gattttaatc attaaaaagg atccttgctg ggcttgaatt ttgtttcttt aggtagaaca 300
cattataaat tggctcagaa ttttaatttac gatgtgccat atgagggtag agatggctgt 360
ttggcttggg gaagctgcct gtaagatcgt atttaccact tagggaacat agttcgcaat 420
gttattcaca c 431

<210> 5322

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B7

<400> 5322

aattcccggg ccgacccacg cgtcagccca cgcgtccgcc cacgcgtccg gttggtggtg 60
ggctgctgtt gccatatcgt tggttaagcaa acatgggagc ctacaagtat atgcaagaat 120
tgtggagaaa aaagcaatct gacgttatgc gctttttact ccgcgtccgt gcttgggaat 180
atcgacactt gccttcggtt caccgagctt ctcgctccac tcgtcccgac aaggcaagaa 240
tgcttggcta caaagcaaag caaggttatg taatctacag agtgagagtc cgtagagggtg 300
gtaggaagag accagttcca aagggtatcc aatatggcaa acctaagaat cagggtatca 360
cacaactaaa attcaagaga aataagagat cagttgcaga agagcgagct ggaag 415

<210> 5323

<211> 301

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B9

<400> 5323

attcgccggc cgacccacgc gtccacccac gcgtccgcag tgaaaccaca ggaaagcagt 60
 gtcgctatgg ggccaagttg gcagcatatt gtagaagaat atgacccacg gagacccaac 120
 gactttgaga cttgtgtgag agaaagagag tggagaaaag cacaacaagt ccagtcaagt 180
 tttgcacagt gatacatatc tatatgtata gagagagaga gagagagaga gaaaagttta 240
 cagctgtttt tatgtcgagg ttgtatgaaa aactatggag gatgaaaaca ctttttgcgc 300
 c 301

<210> 5324
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-062-Q1-E1-C1
 <400> 5324

cgggcccgacc cacgcgtcca cccacgcgtc cgaattcatt tgccataatg acgaccactg 60
 gttgttgctt ggaaaacttt gatcatacgc catcagaaag tgcttctttt ggtgtacggg 120
 aaagaaaacg aaaggaacat gttgataaaa catcaaagac tcccaagtaa aacacctcaa 180
 ggagaccggtt ttatacctaa tcgaaatatg atgaatattg aagtttctcg acttcatcta 240
 caacaagaaa ttcttggaag ggaaaacaaa caacacaata atacctttca agatgcactt 300
 ttagaaagta atagtgaatg gagaaagaac tttttttcat catcgtcgtc gtcaacttgt 360
 cagccgtatc aaagtgcttt ggcaagttca 390

<210> 5325
 <211> 321
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-062-Q1-E1-C11
 <400> 5325

acagtcatac taaaactttg ctgtgtcata tgcgagcaac aactaggagc tcccagagtca 60
 ttccgttgca tatgtcacgt gacatcctaa agtattaatg ccagtgagta caaattctaa 120
 ttctctatcc aaaatacagc cagaacaaaa ctctgcatcg aaacatgtat agtactcgtc 180
 gggatTTTTT cctttgctaa gcctgggacg agtcagtagc tgttggcttg aatgcctgcc 240

tcttcccttt ctccgcttgt gcagaattgc tccgcgtgta attctctata aaagtaacaa 300
atggagtgtg tgaatgtann a 321

<210> 5326
<211> 432
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C2

<400> 5326

cgggtcgcgc cacgcgtccg atctgaaagg cgaattcaga ccagctcaga catatcgaat 60
atataatata tggatgggtg atccgcttcg aatgttgcaa ctccacgtta tcaccaacgt 120
tatcgaagga gaaaatcttt taagaagggt ttcggatact ggaagttttc taaagatgga 180
acttgaaaga atttcacaag agtatccatt tcttgtagcc aacgtaagag gcaaaggac 240
cttcttagcc tttgatacgc ctgatggaga gactcgcaat caacttttat tcgaaatgcg 300
tcaaaaagga gtccaaattg gaggttgtgg tgaaaatact gttaggctaa gacctccact 360
gatatttgac caacaagatg caaatattct actagaaacg ctacaaacgg tgttgaggaa 420
atthaagaac ca 432

<210> 5327
<211> 311
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C4

<400> 5327

aaaagtcaac tttgttttcg ggcaaacc cggaaataat cccgttggtt tccgcaattg 60
cccgtgtga agtttgtgcg gtttttgtga gcatcaacaa cttgtttaat aaccaaccg 120
tggtaccct caattcaaag cggaagcgt attcgcgcaa ttagaggcaa cttgacaatg 180
aagacagacc ctttttgaat ttggtgaaac cacttcgtga ccgccaatc agtttaattt 240
cccaaataga tgaaaatacc aggattcccc attagttgga tagtacatta aatagttgtt 300
gagctttagg t 311

<210> 5328
 <211> 137
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-C5

 <400> 5328

 aaaactcgcg tgttcttttc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaagaaaa 60
 acaaaaagaa taaaaaaca aaataaacat gaatacaaaa taaaaggcac atcaacagtg 120
 tcaccaaaaa ttcaatt 137

<210> 5329
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-D11

 <400> 5329

 acggacgcgt gggcggacgc gtgggtttct tggtagcagt tgtacattca acatcatcaa 60
 atgccaaagg gaggaagaa agattcttca aagaaagaag ccacaagtaa acctgcagca 120
 gcagatgcta caaagacgac agaaaagtct ggtccggaag ccaagttgaa gggaactggt 180
 gcaaagaaac aataaaaagt tgactatgca tgttcctggt atgttttgtg agttctgttt 240
 gatagtttcc agctattctt ttggtagtga ataaagagaa aattttttat aaaaaatcac 300
 tgtaacatgg cggcgagacg tggcgaaagc agcttgga 338

<210> 5330
 <211> 296
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-D4

 <400> 5330

 aagttcaaca actttacaaa caaaaaaaaa cattggcggg gcacgttcaa cctaactttg 60
 caacgttacc ctgtaaacat agtatggcga aaaccaaaaca atagtaaaat aaaaacattc 120
 caagtcagct aaatacacca attagaacac ttcataagat accaacgcta cccgttttac 180
 cccaattccc aattgttttc cgaaaacttg tggtacaaac cttccttagt gaatgtcctg 240

gaacgaatcg gaaaggcacc gacctttggc ttaatcttca atggcgcaact aagttc 296

<210> 5331

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D5

<400> 5331

ggtaccaggt caggaattcc cgggccgacc cacgcgtcag cccacgcgtc cggtaaaaga 60
catcatggaa gagcaacttc cccaaggcac gctttctagt gtgggaaaaa gagactacta 120
aaagaactac aagattgggt ggtgggtgaa cctgtacctg gaatgtccgt ggagagacca 180
gagagattgg acttgtggta tgtcaaagta gttggtgcgc aagatactat atttatggga 240
gaagaatata ttctgcgggt tagttttcca cgagattatc ctatggaagc tcccgaagtg 300
gtttttcttc caccggttcc tagtcaccct catatttata cgaatggaca tatttgtttg 360
aatgttttgt atgatggatg gagtcttgca ttgacagtta cttccgtttg tttgagtata 420
ttgagtatgt tgagtagtgc aacagaaaa 449

<210> 5332

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E1

<400> 5332

ggtcaagaaa tccgggccga cccacgcgtc cacgcacttt aggaatggta agttattttt 60
gtctcgagca tttgacttta tttaggattt tgcataatga aatactttcg aaaccgatgc 120
gatgggcaat ttcactgggg aaataagtca gcctattgtg aatgccagta gaaaggcaga 180
tttactgcaa atgttaacga tgcaagaaag aataagtttg gaacaagtaa ttgcagtagg 240
tgatggaccc gtatcttttag aaatgttgtc tcttgagga atggcaatat ctgtcgatca 300
gccggaagcc accgatataa aatttggagc acatttatgt ggaaaaagtc tcatgacagt 360
tttatattta ttgggcattc gaggaagaga cgctttggaa atgtcacgag atacttttta 420
ggctcttcca tgcgtct 437

<210> 5333
<211> 239
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E12

<400> 5333

caggtaccgg actagaattc gcgggccgac ccacgcgtcc acccacgcgt ccgattgggc 60
aatgtacagg gaagtatgac ccagtaatga ggagtggagt aaacagaaaa ggaagtaaaa 120
ggagggaatg aagggaagtt atggcaaaaa cacgtgccag cagcagcggg aaaacgtgtg 180
tagcaagcgt agagcagaag aactgggtgt aaaggctcag tagtagagta agtgtaaaa 239

<210> 5334
<211> 453
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E7

<400> 5334

aggtaccagg tcatgaattc ccgggccgac ccacgcgtca ggtagaggag caagaagaga 60
agagagaatg ctgggtggag tagcgaaaca agagaaggga agtaaaaggt aagaaagagg 120
aaaggtttac gagagaagga agtagaaaga agagagtgtg aggcggcgctc ataataaaaa 180
tccgaaagga gtagaagaaa agagagagaa gaaagaaaag aagagaaaag ccgtactgaa 240
gaccgacaca ggtactcgag gagaaggag acccaaatta aggtgagaga atggacgata 300
aggaactagg caaaaggata tggtatctgc ggtagaacat atgaaagaag cagcaccgac 360
tgtttagcaa aaacacagca ctctgcagaa aagagaaaat gtaaagtata gagtgtgcgg 420
cctgccaaat agtagagaag aaatcgatga aag 453

<210> 5335
<211> 386
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E9

<400> 5335

cgccaggtac cggatctaga attcgcgggc cgacccacgc gtccaccac gcgtccgccc 60
acgcgtccgc ccacgcatcc ggaggcaa at acgggatagc agtagaagaa gagatagaag 120
gagtaaaact gagtatcagg aagatgatag ggagtagatg aggaaagaaa gatcaaagaa 180
gtaagagtaa gagacggagt aatgtgagat gaaagcagga aagtatttga agaagagagt 240
gtaaagcgcg taccttttgc ataatgtccc agcgagtga agaggaagcc caaacaagaa 300
aaaagatgta gccatgtaag acccgaagct agttgatcat atgcagtcca ggctaaattg 360
gcgctgcacc actatctgtg gcagaa 386

<210> 5336
<211> 376
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-F8
<400> 5336

aggtacaggt caggaattcc cgggccgacc cgcgcgtcag cccacgcgtc cgcccacgcg 60
tccgcgcctt tttttttttt cgtcgcaata aaaccaagtc gtcagtcagt gcaaaaaaaaa 120
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagaaa 240
aaaaaaaaa aaaaaaaaaa aaacagaga agtcagaaga aaaaaaaaaa aaacgaaaaa 300
agacaaaaa aaaaaaaaaa aaaaaggcaa tgaaaaaaaa acccaacaga gagaaaaggc 360
acagaagaca gaaaaa 376

<210> 5337
<211> 355
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-G6
<400> 5337

gacccacgac gtcagggtag ataaaaccaa aaaagatatg ggaggattct ttccggtgtt 60
gttttctttt gcggttggtg ctggagttgg tgtgtatgtg gcacaaaact atcgcgttcc 120
caacgtgcag tgggtggttg aacaaaccac ggatattgtg aggagaatgg aaagacaagc 180

acgcaagtct caagaggaaa agtagtgaaa gaagaagggtt tttttttggc gccttgagga 240
gaagaaacaa ggctattgct ggggaatgaa tccgtatcca attatctata gatatatata 300
catatatatg tagcacgggtt atttgtgggtt cccaactctt tggaaatcaa catgc 355

<210> 5338
<211> 433
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-H2
<400> 5338

cgggtcggcc cacgcgtcca cccaagcgtc cggaagagtc ctgagagtca agtcatggaa 60
gaacttggtg gtcattctca agaagtttgt ggcttgaaat ggtcttatga tgacaaatat 120
ttggcttctg gagggaaacga taacaagttg ttgatatgga atcccaatca caatttgctg 180
gtttggagtc gattcgatca acatacggca gcagtgaaag ccattgcttg gtcacctcat 240
caaagcggtc ttctttgttc aggtggaggc actgcggtac gatgtattcg gttttggaat 300
gtgacaagta acagtctcta caagacaatc gatacgggat ctcaagtatg caacattgct 360
tggtccaaaa atgtccaaga gtttgtatcg acacacggat attctcagaa tcaaattatt 420
gtatggaagt atc 433

<210> 5339
<211> 205
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-H4
<400> 5339

aaaagtatag ggggggggta tgcgcgtata agagactttc ggtgcccttt caatggtgtc 60
tcctattttc ttttccgggc ccctcttttt aaaacgttgg ccgggggaaa actcggtttt 120
taccggtatt accctctttt aacgaaatcc ctttgctcg actgggggtt caccttccat 180
aggcgcgtgt ttttccccct tcgca 205

<210> 5340
<211> 428

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-062-Q1-E1-H6
 <400> 5340
 ttccccggggcc gacccacgcg tcagtgcttt ctaggaagca acgcaacgaa attgttccaa 60
 ttagaaccaa agtaaagggt cccgagaatc caaaagataa agcttccaag atgatagaaa 120
 gagaagttgt tgtggataag gacgaaggcg ttcgtttagg agttaccatg tcttcattgg 180
 caaagttaaa accagtcttc agaaaggaag gctccaccac agcaagaaat gcctcgcaaa 240
 taagtgatgg agcagctgct gtcttgctaa tgaaacgttc ggaagcacag aaaagaggac 300
 ttggctgtct gggactctt cgagcttttg ctgttggtgg agtggaacca ggtgtcatgg 360
 gaattggtcc tgctgttgct attccccgat tattgaaaag gacaagattg gctgtgaatg 420
 atattgac 428

<210> 5341
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-H7
 <400> 5341
 ggtacctagt ctagaattcc cgggcccagc caccgctcca cccacgcgtc cgcccacgcg 60
 tccgatatt tatgccaag actctattga tcttttgaca cgctctggtt ttgactttga 120
 tgagcacgaa cgacatggca tcgacgtgga acgatttgga gagcttttaa tatcttccgg 180
 cattgtactg aacgaagata tatgttggat ttcgtttcat tctggttatg actttggcta 240
 tttgttgaag atattgactt gtagtgagat gccagcagaa gagtctgaat tctttgaact 300
 tttaaacgct tattttccac gtttttatga catgaaatat ttgatgatgg ctcccgacag 360
 gctttatgga ggcctaaata agttggcaga aatcctggaa gtcgaacgtg ttggccaaat 420
 gcatcaagca ggttcagata gctta 445

<210> 5342
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A10

<400> 5342

ggctcgagcc acgcgtacgc ccaagcgtcc gccacgcgt ccgccgagtt gttgggaaga 60
tatacgggct gttccaaagg aaagggaggt tctatgcatt tgtataaagc ggagaataaa 120
tactttggag gaaatggaat agttggagcg caagttccgt tgggaacagg tttggctttt 180
gcagaacaat atctaaatac tggcaatatt tccgttacta tgtatggaga tgggtgctgcg 240
aagccaagga caagtagcag aggctatgaa tatggcagct ttatggaagt tgccttgtgt 300
ttatgtatgt gaaaataaca agtatggaat gggaacgagc accgatagag cttcagcaaa 360
taccaacttt tatactcgtg gagatgtcat tcttgta 398

<210> 5343

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A2

<400> 5343

cggtcaggca ttcccgggtg gaccacgcg tccgggatta ggtgttggat tcttgaggca 60
tgtggaacgc tgtcggttac ttattcacat catcaatgga gagtcgcagg atccattagg 120
agattatgat gctattcgac aagaacttgt tttatttaac ccagcccttg ttgacaagcc 180
ggaagtcatt gttctgaata agatagatct tccacatgtt gcgagtcaag ttgtacaact 240
agagacaaag ttgaaagagc gatgtggtca ttgtcgagtg atgtctatta gtgcagtgac 300
tgagaaaaat gttcaacagt tattgcacaa aactgctctt ttgttgaata gtttggaag 360
taatttagga agtgtggaac gcgacaccat agtcaccaga ccagaagaag agaacctat 419

<210> 5344

<211> 273

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A4

<400> 5344

acgcgtcagg cagtcgtaga ttaggaacca gcaatcaatt ctaatacttt gatggttcct 60

tgactattgg caactactat tagttgaggt ctttttggac accaacaac agaactgaca 120
 aaatgtgttg tatctcgagt ttcttctcca gttagtggat tttcactatt cattctaata 180
 aaggaacaac aacaacaaca ataatagaaa aaaaaaaaaa aaaaaaaaaa aaaacaaaaa 240
 aaaaaaaaaa aaaaaaaaaa agaatacaaa aca 273

<210> 5345
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-A9
 <400> 5345

gtacggtaag gaattaacgg ctgcacccac gcgtacgaaa ctttttccaa atatggagaa 60
 gttgttgatg caagggttgt tgttgaacgt gaaactggtc gttcccgtagg ttttggtttc 120
 gtatcctatg cagaagggtc ctccgtagac gaatgcattg ccgcactgga tggcaaggat 180
 atgcaaggac gcactattcg tgtgaacaag gcaatgtctc gtgaacaacg cgagagtgga 240
 ggagactttc gtcgcggtgg tcgtggtagc atacggaggt tttcgttccg gtccttatga 300
 gagacgtgaa cgtgactctg atcgtagaag agatcatgac aggagagata acggccatag 360
 tagcccaggt cgcagtggac gtttccgccc tcgtgaagac tttgat 406

<210> 5346
 <211> 384
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-B11
 <400> 5346

gggtcgaggc acgcgtcagc ccaagcgtcc gccacgcgt ccgcccacgc gtccgcccac 60
 gcgtccgctt ggcgcgccct tactctctct ctctctctac gactacacca gcccaacctt 120
 gctattcacg attagataga aaagacaaaa ttcgatcaac aatagaagtt tcaatggaag 180
 gagtttcctg ttgtaaagac ttgctttcca agtttccttg tttctcgcct tgttccaact 240
 ggcgaaactgg cagggtatttt gctaaataat gaggcttggt gcaaagattg gaaactacaa 300
 gatagatgaa aaaaactctc cgacagtcgg gataataata aacttcgaag agaaggacac 360

tggtatacgg ttccttccaa aata

384

<210> 5347

<211> 401

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B2

<400> 5347

acgcgtcagc gaatgtctcc ctatacctgt tgttgcataa ttgggttact atagattgca 60

atatcacact gtgcaagcgc tttatgaatt gcatgttttt tgagatcaca caaacacttg 120

tacactgaat gaacgacgta tgggtactaa ctgtgcattt tgtatagata tcaaggatgt 180

caaatatgtt atcaactacg atttcccga tactatagaa gactatgttc atcgcatgtg 240

tcgcactggt cgtgctggtg cccttgga gtcacatac tttttcactc cggataaatt 300

ccgtgttgcg aaagaattag ttaacttggt gcgagatgct ggacaggaca ttcctccga 360

gttggtcgt ttgataaaaa ctctgctctt tggcgtaac a 401

<210> 5348

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B8

<400> 5348

aagctcttcc ttatattctt tgtgcttgga caatggttgc aaagactgct ctgagttgcc 60

tctttctctc tttccttacc gctgccgcag ttgcagccga cgtagtttca gaggagagat 120

ggggatatgc tcagcaaacc caacaacagc aacagtgcc acaagtatgt aaacagtatg 180

catactatca gactccagtc tgcacttccg taaccacaca gagcccatatc tggacccaat 240

gctcgaagac tgtgcaaacc tttgtcccaa gccagtgcag tacttatacc caatctccta 300

catggaccta ttgcagcacc tacaccacca ctacggtacc atctcaatgc agcaaggccg 360

tgactaccta tac 373

<210> 5349

<211> 399

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-B9
 <400> 5349
 gggtcgagcc acgcgtcagc ccaagcgctc gccgacgcgt ggggtggattt ccagacactc 60
 tttgcagttg ctaggctgac agaaaaccac ggaataggtg agaaattcta tttagacaga 120
 tggagacgca aaggagactt tgactcttat tggaccgtta cgagaattca aagagataac 180
 aagggagatc cttccaagtt ctttggttac tatcactaca aggggtactga cttgaaagga 240
 gaaagaaaaa tcgaactcgc caattgtaaa gggtggaggt gcgacacact tgaaaaggag 300
 cgcaccaaatt tgtttggtaa aacaccgaca gttccttagt tggagagttt aaaaaaaaaa 360
 aaacaaccac ccaaaccaca aaaaaaaaaa aagggcggg 399

<210> 5350
 <211> 347
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C1
 <400> 5350

ccgggtcgac tcacgcgtca gccaacgcgt ccgcggaagc gtgggcccgc gcgtgcggga 60
 aatatttgag gctgttgaag ttccacagag gaatgggcgc acaggatgac ctgccacaag 120
 tttcaagctg tgtcgaagcc tgtacggaaa tggcaaaatt ttttaacatc cgtcgggaga 180
 gcgttcagtt ttgttcagag tgacatcttg agcaaggcca acattgtgga cagttaaggc 240
 gagacatttc gtccatagaa aggtctctctg cagcacatca gataaaccgg actggctaac 300
 ggaacttgct ctgtaaaatc accaccttct tgttccccga actgtgt 347

<210> 5351
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C10
 <400> 5351

ggtcaggaac taccgggtcg agccacgcgt ccgcccaagc gtccgcccac gcgtccgccc 60

acgcgtccgc ccacgcgtcc gccacgcgt ccggtcttat tgggggagggc actgtatttc 120
 tgtctaccat tccagccata tactttatgg atcgtttagg aagacgtcca gtgctattaa 180
 cgcttattcc tggagtatcc gttggtctat tcattattgg gttttctttt aaagcaacca 240
 atgtgaaggt tgagtgaagg gatatacatt tggggagtag tgggtctatga attcttctgg 300
 ggttcttgtt taggtcctac tccttgggtg gtggcctcag aagtatatcc tacttatttg 360
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<210> 5352
 <211> 400
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C12
 <400> 5352

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 cgcggtccgc ctacaagaat gggacgattc ttaggcaaat ccctatccaa ctttctttcc 120
 taataacaaa gtctgcaatg cttcccaagg aatacagcag tactaaccaa gtccacaagc 180
 atagaaggaa ctgcaaaaaa ataaacaatg tccacgtccg atagatctgc agaaaatagc 240
 gatcgatgat agacttttta caagggaaga cagtccttta caaataaatg acacttttga 300
 acaaaaaaaaa aacacaaaaa agagacaaac gatgaaactg gcgcaaaaaa acacaaaaac 360
 aaaggtacga aaactctaaa cacagaaaac aaaaggggcg 400

<210> 5353
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C5
 <400> 5353

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 tgtccttcgc tattcctgct gttgtttcta ccggagcagg gctatctttt ggtgtagctg 120
 cttcaattgc aaaggcttgg tctgacctgg atcatttatg tagtggcagg gatagagcgc 180
 tcttgagttt gccccaagtt ttcaaaagtt ccaaggacaa gggcaatctt ctgcgtcgtc 240

aaggacaagg ttctattgaa gccccaggta aagctgagag aattgcaaga caaagagcag 300
gaggtatccg tagtgtegaa gatgacgtcg taccagagga acccaacttt ctagcaaagg 360
ttcccaaacy ggagcgagat gggagagcag cttttcgtcc ttcaaagaag tcaaaccggt 420
ttct 424

<210> 5354
<211> 416
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-C7
<400> 5354

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agaatggata cttttttaat atttgactcc accagtcaac gattcgggtg cgctgctgaa 120
cacgtttatg acgtaaacga gaataccaag ttgcgttttg gtgggaaagt tcgtcacgga 180
gaatcggacc cggcaggata tgtcattgcc gaatatgact ttacggtttc caaagaagat 240
tttccgataa acgttcgtgc acgtgcgata tgtaaaagta accagtgcac cggcgatatt 300
cgtgccaaaa agaagtttga agtggacgaa gacacttctt tttcttctt ggccaaagct 360
tgtactcagg aactaacaaa aggaagttat attattggta aagctggagt gacacg 416

<210> 5355
<211> 431
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-C8
<400> 5355

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cactccaagt ttctccccag ttgcgttctc aagcagtcga tcaagtacgc aagttgtatc 120
agtttttcga tgaaagagac gtgacaatgt tggaaatcaa tcctttggta gaaaccaagg 180
acaatcgttt ggtttgtgtg gatacaaaaa taagtttcga taagaatgcc gagtttcgac 240
aatccgatat atttgcaatg agagatacca cacaagagga tcctcgagaa gtaagagcag 300
atcaagttgg attgaattat atcggattgg atggaaatat tggatgctta gtgaatggag 360

caggattggc aatggcaacg atggatgtca tcaagttgca cggaggtaat cctgccaact 420
 ttttggatgt c 431

<210> 5356
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-D8
 <400> 5356

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 ctacagtttc actctcagac cgttcaacct cgaacactcc cgtcgcttct ggtgatagca 180
 actccaaatt gctatcaaatt gcaagtttgg aaagacaaga agaagatagg gttcctcctt 240
 taattgactt tagtgacttg gttctggaga attccgttgc tgagtcagaa gaaccctcat 300
 gtcccgcttc acctccacaa aaatcactta cagtggagga ggccttgaac tttccaccta 360
 tgcttacgag cttttcggac ctacacctta aaagtgtctt gggactaaca aatatgctgg 420
 aaag 424

<210> 5357
 <211> 284
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E10
 <400> 5357

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 atgaatgcga gtgacttgtc acaaagtatt gtcaactcca ttggttcacg aagaagagaa 120
 gatagagaat cgcacgcgac cccttctgca agtgtttcct tagataatgg aaactcggtt 180
 tcgaaagata tgaaagatat gggaaataaa gaggtccatc gagatttttc caaaaaaaaa 240
 aataaaaaaaaa aagtaaaaaa aaaaagaaga aaaaaaaga aaaa 284

<210> 5358
 <211> 383

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E12
 <400> 5358
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 tggatatggac agtaccacgc tgataagttg agttcgttgg ctccagaact aaaccggggtc 180
 agatcatatg ttagccgctc acctggaact tcaactccaaa agatcagaac ttgattcgtc 240
 gtctgcgaca ggaactgctg aagagaagtg attcttcata ttgaaagtg attccttatg 300
 ggaagttagc tcacgtaccg ctttttgtaa ccgcggcagc ttcagttaga acgctaactt 360
 ttcaaaaata cccgggtttt gag 383

<210> 5359
 <211> 382
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E5
 <400> 5359

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 aatgccttta gtgaatgaat atttggagtc tttgaagagt aagattgccg acttgagaaa 120
 tgttggtgga agggctggtg gctccattgc tgcggccttg tttttaagag aattcgtgaa 180
 gcagtctcct tgggcgcata tagatattgc aggaactgta tggaatgaga agcagtcggc 240
 agctacagga tttggtgttc gtactttggt agaaatttgt gaaagttttt ctcacgaaca 300
 ataaaaagac acaagcgagg cgccctacat gtgttttttg tttctgcgcg ccaaaatttt 360
 gaaaaaaaac aattaacatt cg 382

<210> 5360
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E6
 <400> 5360

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 caagaagaac gtgaagctgt ggaggctacg agacatatga ggcaacgact gaaaaagtct 120
 gtactaaaag atgagccacc tgagaacagt cctcacgtaa cggagttgct attaaggcta 180
 ccggatggac gaaaagttgt gaggaggttt caagacagt accaactaca agtcgttgta 240
 catttcgtgg tttatgaaac gggactatcg gaagatgagt ttcaattgat tgttccttat 300
 ccccgaaagg gtttaaccaa catggaggct aactcgcag accatagcct tattaccaag 360
 gctgcgttga taatacaacg taa 383

<210> 5361
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E7
 <400> 5361

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 gggcctgac gtatgatggg aacctattcc gtattgcctt ctctaaagt atcggatact 120
 gttgtggagc-cttacaactg-catcctttcc-gttcatcagc-tggtggaaaa-tggagatgaa-180
 gtgttctgca tagacaatga ggcactctat aatatttgcc acaatacgtt aaagatgaat 240
 aatccatctt acagtgacct caatcaactc gtcaccgcag taatgtcagg tattacttgc 300
 tcaattcgct tcccagggtca gttgaatgca gacttgagaa aacttgcaac caatttgatt 360
 ccattcccc gccttcattt cttcatgatt ggatttgctc ctcttgagc tccaggaact 420
 caac 424

<210> 5362
 <211> 195
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E8
 <400> 5362

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 gggtggtttc ttgtggcgtg tgtgggtgac gttgttagtg acgaccgtgt cagagacgac 120

gtgtccgtgc atcattcgac tagttgccat acggcgagta tgctgtccag gacatatcgg 180
 atagagttgc atgtt 195

<210> 5363
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-F10
 <400> 5363

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 agagaatatt ggaagaaaat agagaacgag ttgagctcta tttgtaaaga tattctttcc 180
 atattggagg ataatttgat tcttcccc aagtctggtg aaagcaaagt ggttttacct 240
 taaaatgaag ggcgactatt atcgttatct cgcagagttt acgaatcagg aagatcggaa 300
 agcatcggct gaagcatctc tggaagctta caaggcagca agtgagatag cttccaccga 360
 attggtcca acgcacccca tccgac 386

<210> 5364
 <211> 420
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-F5
 <400> 5364

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 tcttcgatgg taggacgtaa aaaggagagt cgacaagaac aatcgaattc tttttgttt 120
 cgaaaccaac tggatcgcaa gcaacgtaaa caacaattgg cagaaatgct acgtaaacia 180
 atggaacaac taagtatgcg tttgcggtca aaacagcaac cacaagaaga agaagaagaa 240
 gaagaaagca attgcagcaa cagcgcttct tgaagaattt tcttggtgcg ttggacgttt 300
 gtccaaatgg cctttttgag tgaagttttg ttacgaacia gaatagcacc gagttggcag 360
 agaaaaagat attgtttctc ctgtcggtca catcataaag ccaaacggta tacgtttcat 420

<210> 5365
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-F6

 <400> 5365

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 tgcacagagt atgagctata cagacatgag gatgtggaac acacatgctg agatcaatgg 120
 caataactgt ggaacatcct cgttccatat ggtatacaca tgaaccttcg atgattccac 180
 acttgcgacg ttgtggttgt gcatgtatat ggacgattta cggctcgttg tggttgtcag 240
 tcatcaaaga cctgagtcgc ta 262

<210> 5366
 <211> 412
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-G2

 <400> 5366

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 ctgtgacatc ttcacaagag acaaaagatg aaggcccga aacaaagcca aaccgctttg 120
 caattactgg ccacacagag gaggaaatgg atacagagct aagcaagctt gatgacgaga 180
 acaaccggct gcacaagaaa agattactta cttccacggt ctttggtaac cctaaacatt 240
 ttatatgggt ccttgcatcg tttgcgagca tgggaggaat tctgtatggt attgaccagt 300
 ctttgataag tgggtgctgt atttatatgc cagttgacct acacattgac cagaatagag 360
 aagacatggt tactggattt atgccacccg gtggagtatt tggggcttta at 412

<210> 5367
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-G8

 <400> 5367

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gaacaatctg agtcatttag tctctacgat tcccaacccg aaaagtatcc ggtaacgaga 180
tgacaggagt gaaagggttg tgtgtatcgc caaaaaaagt gtaaattgatt ccacaacact 240
ggacactttg aatggttcct atctaccaag tagatatctg aatatcatgg atgtttcaaa 300
tggaataga agtgtgtgta actttgtgtt tttgaacaca aagatatcaa ctgtggcaac 360
taaaagtatt ttcgttattt ctgtac 386

<210> 5368
<211> 125
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-G9
<400> 5368

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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggcgga 120
cgaac 125

<210> 5369
<211> 351
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-H3
<400> 5369

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ctgagaaact ttccgtacct caaaacctag ctttggttg tactggagtt atctgggttc 120
gatatagttt tgtaataaca ccagtaaact ataacttggc actggtcaat acctttgttg 180
gtgctaccgg tatttatcag atttgagaa aagtgaacca cacctatttc caacaaaaac 240
aagtttctgc taattgattc gctatgagac gtgatggagt gagatatcga acaacttttg 300
gtgtgtgaaa tccagtgaat atgaaagagt tgggtgtttt tccacaataa a 351

<210> 5370
<211> 293

<212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
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 <400> 5370
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 cgaataattht gccctaaca actaagaagg aatcactac aaccaacgaa aattccttct 120
 cccctccta tccaatactt aatattcgta cattacaatt tgcaccatca acgtcctttt 180
 ctacgaccgg atgacctaaa acaaggcggt ctacttcac cacatcctct ttggaaccga 240
 taaataaagg aacacacatt tccaacgacc tagtcacaca cacacaanan ana 293

<210> 5371
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-H5
 <400> 5371

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 ttcttcattg gaaagatata ttctattaga tactattctt tatgttggtta ttggctggtt 120
 tggttgcttg tccatccatt ttgcctagac acctgtgtta tcgttgctct cctcgaataa 180
 agagcaacgt tgttggtcgt ttcaagaaac gccatcctat ttcaccattt ccagcgatga 240
 ctttatggca aaactggact tggctcgtgg tttccagtac atctccttat actcctatat 300
 attcctgggt atttccgtta tccacgatac cttatgtttt atttctcagg ggtttggtga 360
 aaaaaaagtc agttcctgta gtagcaaaaa taagggtttt ttatttgcct gttttcgtgc 420
 t 421

<210> 5372
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-H6
 <400> 5372

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 aaagaacctg ggagtatcac ttccaacaaa tatggagcga aatggaaagc gacaggaaac 180
 tgtgtttcgg tctgcgaata gaaacgaaca gaaaacggaa agcgtcaaga aggaaagtac 240
 ccctctagct gctatgtttg gtgatgactc ttcggaacaa gttgaggaaa catctgtggg 300
 aaatgggctc aatagaactg ctaaagaacg aaaatctgga gattcttctt ggtttgggga 360
 taac 364

<210> 5373
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-H7
 <400> 5373

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 atggtatgag gaacaatgca cctcatactg ctgggttcca gtacagacct atgaaactta 120
 tcaatgttct caagagaaga agaaggagta cagctatcct tgtcaaactt atgagcaggt 180

ttcaactact taccagtgtg gtcagtacga gtcccaacaa gtttactacc aatgccaaaa 240
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 tgaagaatgt cagcaagtta cccaggaagt ttctccttca gaaattgtct actacggtga 360
 atcttcttct agcagtagtt actactacta gaacacttgt gaaatgcgca aagtcgcaaa 420
 gtaaagtgtt cctttt 436

<210> 5374
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A10
 <400> 5374

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 ttgcacgtgt ggggtgtgctc agtcagaact gcttctcagt tagttacgca atatgcctag 120

tcataaggaa caaaataaag gaattaaaat atcagctgac ggttacgcac taaagttgag 180
 cggatttcgg ttggacgtag acggcagttt ggtcactatg gtggacgcag acgacctcag 240
 aagccctcat gtttaaggaa agcctcaagg aaaagtcaaa gctgcatgac ccaaaatttt 300
 tcaaaagcta ttatgaggag aataaggact acttttatta tatgactcat acggagaaga 360
 aaatgtttct ttctctggaa gttgcacg 388

<210> 5375
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A11
 <400> 5375

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 gcagaatggt ctctgtcatt caaattctgg cctagtgtaa gtagaataga cgatgcttac 180
 ggtgataaga attttggttg tacctgtcct cctatggaaa gttatatgga agcagaacaa 240
 gcgagtggct tgaacttggt ggaaaacgaa taaacaaaca gggattttcg atgtctattg 300
 gactggaaaa aaatgacaat gaaagagaaa aaactggtac aagaacaac 349

<210> 5376
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A12
 <400> 5376

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 gtttgttggt tttatcgcta tctactcttt tattagctat gattgcgttt ttgagaggtt 180
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 ttgcgagtac ggcaactcgat tgcttttccg tttttgtcca agagaagcgc gagtcaagtc 300
 gtgtcgcctg gccactgggtg tcttgtatct tgttggatag aaaaacttta caattcttcc 360

gttgtagtag tggtagaaa attttggtat tgattgcata tagttgaaag attcgtatat 420
gtgtgtat 428

<210> 5377
<211> 298
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B10

<400> 5377

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aaacaaatac aagaaattaa agaatgcagt agaacttcca ttgacacatc ccgaactata 180
tgaagatata ggaataaacc ctcaacaggg tgtcatatta tatggagaaa catgtactgg 240
aaaagacctt attggccaga gcagtggcaa atagcacatc cgctactttt cctcgtgt 298

<210> 5378
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B11

<400> 5378

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gggaagtaaa aggtaagaaa gaggaagggt ttacgagaga aggaagtaga aagaagagag 180
tgtaaggcgg cgtcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga 240
aaagaagagt aaaagccgta ctgaagaccg acacaagaac atgaggaaga aagaggcaaa 300
tacgggaaag cagtaaaaga agaaagagaa agaaaaaac tgagtatcag gaagaaaaga 360
gggagtagat gaggaagaa agatcaagga agtaagagta agagaaagag taatgtgaat 420
gaaagcagga aagta 435

<210> 5379
<211> 220
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-B12
 <400> 5379

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 tcgagcatat actcttacac atttgggtat aggtacaata aggcgtttgg tgcgggggtt 180
 ggggatggag tctcataata gtaataatat gtcggagtct 220

<210> 5380
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-B5
 <400> 5380

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 ggttcgtcag agagttttgt actagtagta ttccatgctt cgtgggtggtt gattggctct 180

ttttacaaca gggttgtcaa tttactgcca atctccacag catcaactgc ctacttgggt 240
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 aagtgcacgc agacgggttag tatacctgta gaggaagcac ttgaaaagg gtcacgcccc 360
 ttgtaaagtt ctaçctgtaa gtagttgttt ttgctttag agaatgcaag tttagtgtac 420
 ccgacaatat 430

<210> 5381
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-B9
 <400> 5381

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tatcaggaag aaaagagggg gtagatgagg aaagaaagat caaggaagta agagtaagag 180
aaggagtaat gtgaatgaaa gcacgaaagt atttgaagaa gagagtgtaa agcgcggtacc 240
ttttgcataa atgtcccagc gagtgaaaga ggaagcaaaa agaaagaaaa agaagtagcc 300
aggtaagacc cgaagctagt tgatcttatg ctgtccaagc gaagtaaggc tgaaccagta 360
tctgtggaaa aagatttgga agagatggca taaagggtga a 401

<210> 5382
<211> 368
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-C10
<400> 5382

gaattcccg ctcgaccac gcgtacggta ctagttgcgg ttgacgtggg gtagtggtca 60
accaagagtc cttgggacac aaactatgtc cacaacttca taagtttgta aagtttgagt 120
acttgcaatg agctatctag taggaaatac cgaacaagac ttacaagcca agaaaccaac 180
atatgaagaa ctggtggccg aactatctca actcaaggcg gattttattcg cagaaagaca 240
caataagaaa ggtagttgaa caagagttga aagagttgaa acagttgtcg ttttctatgc 300

aaactcatat cgaggcagaa gaggagtata ttgccataa actcaataaa ccgctcacag 360
agttgaaa 368

<210> 5383
<211> 413
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-064-Q1-E1-C11
<400> 5383

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ttgggagcac tattgtgtac ttgttattgt gagtggaagc gttttgaagg agaattgggg 120
gtacaagaat ggaatgaatt ggagaagata tcttccttag atacttggaa gcttgtgctt 180
ggtacaagac aaagagtgga taatatgtta cagcgagtac acaagctgac gagcatcttg 240
tcctttttat actcggggcg acaaccgaga gtggactata tcgttgctga ggatgaagca 300

agttgggaaa agttgtggag aggaaaacgc gaggtcattg gatatacttt ggaagcagct 360
ttacagaaaa cttgtattgt ggaaaaccag ttgagggagt ggaaaaagaa act 413

<210> 5384
<211> 346
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C2

<400> 5384

gggtcgagcc acgcgtccga gcacaactgg cggttcacga atgtttcgct caaggagtac 60
tccagatatt tatcgatggc gtccctgtatc tgttactcat tcagctgacc acaaagatgg 120
ccttaaggat tctttgataa ccaatcaaat ctttcgaatt tcagaaactt atcgtaacaa 180
ggacgacatg ctgaaagttg aagttacacc ccacactggc ctaccaggtg gaaagcaagg 240
acctcgtgcc tctccttggt cagctatgga gaatgtgatg aacaataata atgactggac 300
ttgttctgct gggaatgctt cattcgagag gcagagtgtc tagttg 346

<210> 5385
<211> 447
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-C5

<400> 5385

attcccggct cgacccaagc gtccgaaaca actcgggata acgagagata gaatggacat 60
tcttgctgct cgtgaagaaa tactgttgca gcaagtacaa gaaagattcc agagattaca 120
aagttacacg actcaagtat ccgcatatta tgaaaagcta aaatttccaa tggaagagta 180
tgaggagttt gcttctcaac actcaaactc ctctctttcc tgcttgcacg cttgggaacg 240
ggaacttggt cgtttagaac aacttgaaaa ggacagacta caacagctct tggatgagag 300
caaacaaaag ttgcatgcct tgtggaatga acttcaaatt cctgtttcag aacgcttgca 360
ttggcaagaa acccttgatg aggaacattt gtctacagga agacttgata ggaagacatg 420
accaagacat cagtagactg gaatcct 447

<210> 5386
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-C6

 <400> 5386

 aattcccggg cgcacccacg cgtcaggtgg tgggtggtgga gacgcgtttc aatctccac 60
 gaggctttct acaattgtct ttgttgtggt gtttaatatg ttgggtttcg tgcacctcgt 120
 gagtccaaac aagatatctt caaaagggag ctttgtaaca tgccctgttc tatccaagaa 180
 acgagtatcc ccgtctaaga gagcaactat tgtggcttct tcttttggtg tgaacggttc 240
 caaaatggga tctctgggcg gtgtcaagta caaaaacgt gccgtagcaa acgatggtcg 300
 ttgtttcaaa ataacctatt gtcaaccaag tcagtcgaga ggttacagcg ggaagga 357

<210> 5387
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-C9

<400> 5387

 aattcccggc tcgacccacg cgtacgaccc gctgaactta cgcatatcat taagcggagg 60
 aaaagaaatc cggcaaagaa cagaaaaagg taagaaagag gaccgaatca gggtaagagg 120
 tagaggagca ggaagagaag agagaatgct ggggtggagta gcgaaacaag agaagggaag 180
 taaaaggtaa gaaagaggaa aggtttacga gagaatgaag tccaaagaag agagtgtgaag 240
 gcggcgtcaa taatagacat ccgaatggag tagaagaaaa gagagacaag aaagaataga 300
 agagaaaagc cgtactgaag accgacacag gtactcgagg agaaaggaga cccaaattaa 360
 ggtgagagaa tggacgataa ggaact 386

<210> 5388
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-D10

 <400> 5388

attccccggcc tcgacccacg cgtaagccca cgcgtccgat catttttgtt cccggcaaag 60
agcaacttca atatggatgc aatgtgttga atttaggcaa caaaaatatt gtcgcggtac 120
acccgacaac tgcccgtaga attgccaagg cgccttgttt cgatggaaat gtagaatata 180
tcaatatgtc tgcaatcact gcgatgtatg gagcagcaca ttgtgcatct caagtcgtct 240
atctgacaac atgtccacga tattctcact gacgacgacg acgacgaagc aaagtgggtt 300
cgatggcaaa acgagatatg cggttcacct aggagaagac aacaagtgcc tactgctttg 360
gaaaatggat gtactggttg ttgtcgccat catcgcaacc attagta 407

<210> 5389
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-D12
<400> 5389

gaattccccg ctcgacccac gcgtaagaga aaggaagaca cagtaaataa ggcgagaaag 60
cataggaagt gaaacggatt aggaaccggt gtagtctatg cagtaaaaga aagaatgagt 120
aagaaaaaag ggagtcattc caccagggga gtaaaggcgc aagaaagaaa cccaaagcaa 180
ttgacgggaa tcggaaaaag ggggtggatca cgtaaattaa tccgatataa accgagaacc 240
ttaccctctc caagaagggtg ttgcacggct gtcgaaagaa cgtgctgtga agtgagagaa 300
cgtacgagaa agccaagtga ggaaaagaag gcaagtagag ggcgggccga gaaaggagag 360
ggcgtaagac gtgatacaga gtaagaacat gaggaagaaa gaggcaaata 410

<210> 5390
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E10
<400> 5390

attccccggt cgacccacgc gtaagcacga aatggacgct tagtgacgat aaaagacttg 60
tttgtagtgt cggtttgtag aatgaaaact ggcctcttat cgcaagagtt cttaaataatt 120
ggctcttattc agaatgtgag aggcgttatc gaacgttgca acgggaaaat aggctgcttc 180

ctttagaaag aacggtaatg aaggaagtgc gcaaaggaaa atcaagcgaa ttgctatctt 240
ccatgtacta ttcgtcacga tgaatatgga ttggcaagag agcgatgttc atcggcttta 300
caagaagtat tttttggta ataactgtgt acatacagaa gatgacgagt attcgcaagt 360
gcagcaagta atctgatatc cttagtagtt gtagttggga gtgacacttt t 411

<210> 5391
<211> 355
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E6
<400> 5391

gaggtcccg ctcgaccac gcgtacggag agagagggga tgagtacccc agccagacga 60
agattgataa gagactttaa gaaactacaa caagtaggtt atttcttttt ttctacgttt 120
ctaatagcag aactgttttt gtgttggtca tacgaccctc ctagtggttg tagtggtgct 180
ccttgtaga atgatattat gcgttggaat gcagtcaccc tatgcccaga agatagtatc 240
tggaaggtg gcacgtttaa actaactttt cagttcaccg aggactaccg taggaaaccg 300
cctacggtca agtttggtgc caaaatgtac catcccaata ttactcgga tggaa 355

<210> 5392
<211> 400
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E9
<400> 5392

gaccacgcg taagcccacg cgtccggaga agcgtatatc agaaagtcag aaacaggaag 60
gtcaagcaga tgatacaaag gcggcattgg atgacgagaa agaaattctg aaggaaatag 120
aactagagat agccgatttt gattctgtga tatcaaacca agagaaggag aacagtgatg 180
gcatgaaagg tgatccagta acgcaagtga cacgggtgga acctcgaaaa cgagccagac 240
acaaaaatag aactctccaa ggaacaggaa accgctttac atgaaacgtt tgatgacgca 300
aaccatgaaa tggttcctaa caagaagagc aggacctgca aagtgaatga agaccatcct 360
tctacgcaac agtaaccact taaagagaac ttacgatac 400

<210> 5393
 <211> 391
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-F12

 <400> 5393

tcccggtctg acccacgctg acgagagaga gaagaaagaa aagaagagaa aagccgtact 60
 gaagaccgac acaggtactc gaggagaaag gagacccaaa ttaaggtgag agaattggacg 120
 ataaggaact aggcaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc 180
 gactgttttag caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg 240
 cggctctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa aagatgaggt 300
 atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaaatt agacgtttga 360
 aaggcgtcca gtatgaaagg agaaacgagt g 391

<210> 5394
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-F9

 <400> 5394

gaccacgctg taagatggaa aatgggtatt gtagaggagt ttgctgaagc atggttgaat 60
 actagtgtac atagaagaag aaggaagcag ctacttgtga cgtcgacaac cgaacttcct 120
 tatattctcc tttcacctgc ggaaataaac aaacaagaaa cttctgttcg aaggggaact 180
 ttaagtgtag agaaaccaca gataattgtc ccgggacaca aacaaaatat tgcaaaattt 240
 tacgaaactt gatgatgagc ggtttgagga tatacgtaat tctctgatat tagctcgttt 300
 tgtaaagttt ccatctggca gatatcgga cggttcttac cagttggaca ttgtggatag 360
 ccagtagaa gcacttgctg agaagtggaa cgaacagttg ggaaaagaa 409

<210> 5395
 <211> 213
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G11

<400> 5395

gacccaagcg tccgccttta gaatgttatc cagagcttca attgccgcat aactttttgc 60
accacaagca aaacacaagt cgcgctcttt ttttggaat accctttgga agggaaccaa 120
ttcctgggtcc gaatccgttt cctgggtccca acaatcctgg cttttcaagt tgcaaggcgt 180
tgcttgggtcc ttgaaaattg tggattccgg ttt 213

<210> 5396

<211> 347

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G2

<400> 5396

cacgcgtcag cccacgcgtc cggaatgact ccaccaatga tgcgatgaag attgtctaca 60
gcagctcatg atctctatct tgtagagtt tctcgtcct attgacatac agcaagtcag 120
tgaatgggtg atgtctttag gagcttgtgc tgttgaagtt tctgagagag atgcgggaga 180
agaggctgct tggctcgcca tagccagtgc acatcagcaa catctacagc agttgggaag 240
caacactgct tggaaacagca gcagaacatt tcgggttttg cgttcttcag acgtgtctcc 300
agagaatttt ctgatggatg ttgcttccgt ttccgagtgg aattcag 347

<210> 5397

<211> 229

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G6

<400> 5397

ggctcgaccc acacgtcagc gcaagcgtcg gctcgacgta taatttggaa tatcacagaa 60
tgtttctcag gtttgaaca ggcactctac gactacctgt tggaagggtc ccaccttga 120
gtcgtcgttg gacgatagct aagcgaactc cagatgcagg tcaatgtcca gataattgtc 180
taactactgt gaagacctgt accaattagc tgaaacttcc gcaatactc 229

<210> 5398
 <211> 335
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G7

<400> 5398

gacccacacg tcagaggcaa ggagaaattg gagtcatcaa agttcatgag aaaaatccag 60
 aaatggctta tactattggt cgcccaggac acctgataaa tgagcctgcc aaagggccca 120
 agtcagtaat agttgatcaa ggtgatcgca ttagttggag ggttactaga gcggacgtag 180
 cgaaagtatg ctgtgcttgt ttaaaagtcg aaaatacgat gaatgcgacg ttcgaaatag 240
 ctggggaggaa ggaaacagaa tcgcagtcga atcttccga aacttatgag gcgctgtag 300
 ctactgtaaa gccggataag aaacctgagt ctact 335

<210> 5399
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G8

<400> 5399

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 ataattcttg actagatagg tttagggagg agagagaatc atgaagtaga ggaggtgggg 120
 taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct 180
 taagctagtt tggctgggga agtaaagcct aagaaagagt aaattaggca agcaaaggca 240
 tgagagaagt ataatagcag aagcatgctt gaagagagag aaagagattt cagaaaggga 300
 agaaaagtca gctatagaga acaggtgaag gacaactcaa gaagaggaga gcaccgaacg 360
 atcgaagaag aaagcttggg ggtaacacgt taatgtggtg ttagagaacg tatc 414

<210> 5400
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-H10

<400> 5400

agg tcaa atg gaa agcatat ttt tacaaaa ctt ttcacaa aaccaggctt tagctcctat 60
gtgcttgc at tcagccttcc acgactgttg gaacggttgt aacggagcgt tg tttttacc 120
agaggaaata gacagacccg agaacgcagg tttacctcca ctgaaacat atctgatgcc 180
ttttactagc cagtttccct gtataagtat agcagatctg ataaacctca tgtgctgtaa 240
cagccttgaa gtttcttggg ggacctgatg taccgggtata ttatggacgt ttggacaggg 300
gtgttctga tccctctggg cttattcctg aaccaactat gagtttgtct gctcttatca 360
attctttcaa cgctattggg tttagcaaag 390

<210> 5401
<211> 333
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H3
<400> 5401

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atctaacagt attcactcgt tccctttgca gtgctacgtc ctcactcagt tccacaagca 120
gcggtgatca gggaagcagt ttacgttcga gtgttgccag tcgctatgca tatactttat 180
tatcccttgc tcgaaaagaa cgtatttttg agaaagtcac caacgatgtg aagcagtttc 240
gcacttttga gtcggatcat ccggagttca agcgttttg acaacatcgc acagttccaa 300
aaggcgaaaa gcaacaatta ttgcgcgagt tgt 333

<210> 5402
<211> 342
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H5
<400> 5402

gaattcccgg ctgcacccaa acgtaagcga ttcttctgtc gttgggctcc acgatgagtg 60
ttgactcctg tggtcagttg ttgataggag aacttcccgg agttggtacc ttgaacgttt 120
gtttatcttc ccaagaaaca gttggggact tggaaaaaga gatatggaaa cggttgggtt 180
atcactggcc tttggtattt ctgtatggag ggaagctggt gactacggaa gaaaggctct 240

tgcgttttgt caacggttcc tttctacaag caagaccttt ggggtgttttg gaaaggaggg 300
aaaggagggt ttggtacact tttgagaggt caagctgcgt tt 342

<210> 5403
<211> 348
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H7
<400> 5403

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gaagagcggt gggctacttt ggggattgag gctgttctgc gtagaggagg ctttaaagga 120
caaaacttaa cactgatgct tgttggtcaa gtaattttac tgtctcatct acctcttgta 180
cctttatttc gttgaatggt gttcactttg gatttcaatg ttttaggggtg atggacgac 240
ctagtgccct ggtaaacaag agacaccaag gaaatacagt tcctttcttc ggttttcact 300
ttatcaacct tgactactga ggagcctatt tctttggaat ttgcctcc 348

<210> 5404
<211> 249
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H8
<400> 5404

cccacgcgtc cgaataaatc taaagtaaaa ggtaagaaag aggaaagggt tacgagagaa 60
ggaagtagaa agaagagagt gtaaggcggc gtcataatag aaatccgaaa ggagtagaag 120
aaaagagaga gaagaaagaa aagaagagaa aagccgtact gaagaccgac acaggtactc 180
gaggagtaag gatccaaagg tagcgaagta aatagacgtt tgaaaggcgt ccagtatgaa 240
aggagaaaa 249

<210> 5405
<211> 372
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-A8

<400> 5405

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caaagtaaag aaagaaggaa aaggagaaga agagagggta ggcttagaag cagcaaacca 120
gagaggaaaag cgtaaagca tgaaagaaaa gaaatccgaa aaagatgagc ataaggagga 180
gaggagttag tacgataagg ttgagggaga ggataaggag gggagaggag atagggataa 240
gttaagagaa gagataaagg aagagaaggg ataagagagg agagaaggag aggaagggaa 300
gtaaaagagg gagtaaggaa tgtaagtaag gaagaagaac gaagaaggag tangaacgag 360
agagaacgaa aa 372

<210> 5406

<211> 366

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B10

<400> 5406

gggtcggccc acgcgtcagc ccacgcgtcc gctttggtgg gcaccgctgc tatttgtgtg 60
gaacaatgac gactagtact acaacgagac ctaaattatt gaaagtagta gtcctaggag 120
atagcgggta acggtgtaat ctttcaacgg atcgtttctt aatcaagttt agtggtggga 180
aaactttctt cttggagcgc tttgtcaatc gtcgttttag tcagcagtag aaggccacta 240
ttggagcgga tttcctgacc aaggatatgt ttgtagatga tagaaatgtt aatttgcaaa 300
tatgggatac aacggggacaa gaacgatacc aaagcctcgg taatgcgttt ttcgtgggtg 360
ctgatg 366

<210> 5407

<211> 344

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-B12

<400> 5407

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tacgataaga aagttgaaaa cattcactac tttcaccaga accttatgtc accaagcggt 120
atcaaagaat attggaacgc tgtcgaccct gtagtagccc tcgtgatggg tttcaacttt 180
acttccagcg tgagtattgt atcagtgaac aaatatgtga cccagttggg ttttcgtttc 240
atgtgtactt taacttgtat ccacttcatt gtcacttttt tgggcttagt actttgttct 300
tacgtggggt tattcaaacc anagaaacta gacctatttg cagc 344

<210> 5408
<211> 339
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-B3
<400> 5408

ccgggtctgc ccacgcgtcc gccacgcgt ccgccgagcg cgtccgcca cgcgctccggg 60
aacccaagta ttgggatgga agaacgtatt tgaaggcaaa tatatggaat gcagtgttgg 120
aatttcaacg aaaacctgga gataccgggt cggcagaagt acaaggttaag acaacaaggg 180
aaaccatggg atggatggat gtgaccacat gtgtgtgtgt gctctctctc tactagtgtc 240
gggtgttgacc aagagaatgg aagcattgga gaaacaatgc acagaaacat agatgatccg 300
aaagcacaat atttgttggga tcactttact tcgaggaga 339

<210> 5409
<211> 432
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-B7
<400> 5409

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atcgtagtt aggaatagaa gattggattg gataacaaca cgaatatgca aagttttatt 120
gtaggaatgc aagtttgca tagttgttat agatggactc tccaacgact gcaaaagaag 180
acgacgaata gtattctcgg tggtttgctt tcgaggagaa ctcttagtcg tcctgttttt 240
tttcgtcaag tatttttctg tgcacaagac aatcacccaa cgtatgaaga gtttgccaac 300
gtgttgagac aaggaatatt tccttgggaa caagacgacg aaaccagga acgaggtaac 360

cctcagtgtt ccctgtgtca aggagacttt tatattcctt gtgaaaactg tcaaggcggt 420
 gggtttttgt tt 432

<210> 5410
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-065-Q1-E1-B9
 <400> 5410

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 taaaaactgg ggtagatggg ggcctaata tgaagttggt tctcttaatt ttctaacgaa 120
 tcaggaagtg ctgagaggta ttcagtcggt tcgatttggt gaggtgtata cggtgggtga 180
 gttgatagcc aaccctaaaag gagagccggt atttctctggg agaacaggtg cactcaagtt 240
 tatgacacaa gataagagct actataaaaag tggcaagtcg cagtctttac ctggtggtgg 300
 tgaatactcc gatgatggca tcaccatgta cttgcaaggc tccacacagt atgatgccat 360
 gggtcatttc tggatatgatg atcatatctg gaatggatat tctgccgat 409

<210> 5411
 <211> 381
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-C12
 <400> 5411

ggtcaggaat acncgggtcg agccacgcgt ccggaggatt cgaggagaga gagagagaca 60
 gacagatggc caacgctggt caagatggcc ttgtgcaagt caacaaacat agaaaagtaa 120
 agagattgca agaagataat attttgaata gagcactatc acaaccagga gatgtatttc 180
 tgtgcttttg caacatccag ttgttggtga atgcagaaag agctattata ggaaatatta 240
 cttgtccaga aagtatcgaa ttgtgtcgtc tattagctgg acatatagca gtttggttcg 300
 atgaacattt ggatgacttt cgtttggaag ctatcttggg agcactattg tgtacttggt 360
 attgtgagtg gaagcgtttt g 381

<210> 5412
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-C2

 <400> 5412

 gcgtccaggt acaggttcg aattcccggc tcgaccacg cgtacggtcc ctcgctctcg 60
 tcgtccaacg agtaccaaga cataaaatag aaaatggcaa ctttactatc caaaaaaaga 120
 agagcagtag ccgacggtgt tttcaaagca gaacttaacg agtttctgat gcgagaattg 180
 tcggaagagg gatactctgg tgtagaagtg aaaccacgc cgttgcgaaac ggaaatcgtg 240
 atccgagcta ccagaacaca aaacgtgttg ggagaaaaag gtcgaaggat tagagaactc 300
 actgcgttgg tacagaagcg attccgtttt cctgaaggaa cagtggaact ttatgcggaa 360
 aaggttgcg atagaggttt atgtgccatt gcgcaagcag aaagtttgcg gtacaagttg 420
 ttgggtggat tggctgtgcg tagag 445

<210> 5413
 <211> 315
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-C5

 <400> 5413

 gaattcccgg gtcgaccac gcgtacgcc acgcgtccga aaaaagagag aactacagaa 60
 gaagaagaag aaaccactat taccaccacc agcagtagta gtagtagtaa tagtaaagag 120
 acaaagacag aaaaacgtcg agctgcttta gagcgctttc ggacagaagag agccaatcgg 180
 tgttttcaaa agaaaattcg gtacgagtgt tcaaagaagg tggctgacgt acgtcctcgt 240
 atacgatgtc gttttggtaa aaaaggaaga ttccaaaaac tttggttgga aactggtgac 300
 gcaacaatcc caact 315

<210> 5414
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-C9

<400> 5414

gggtcgagcc acgcgtcagc ccaagcgtcc gaagagtctt ggaacttgtc caaggaagag 60
aagattgaaa actcgatgcg cattaagaa aagggcaatg agttgttcaa gtctggtaga 120
tataaacttg cgaagaagaa gtatgaaaaa gtgataagcg atttggagtt tgatgtgcgt 180
aacaagtcgg acctcaatac gggacaaaag caacaaggaa aatccattct gttgcagaca 240
tacttgaatc ttgcagcttg tgaagaaaag cttggcaatc cgaacggtgt attgaaacaa 300
tgtaacaagg gattggagtt ggattccata aatgtaaagg cactgtttag aagagcctct 360
gcatatttac gcatgtcgga agtgttggtta gcagagaaag a 401

<210> 5415

<211> 298

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D10

<400> 5415

ggtcaggaat atccgggtcg agccacgcgt cagcccacgc gtccggtttg cacgcagctg 60
cgtatgacta tcgtacttta gggcttcctc ttgttgctga agaaagaaag ttggaagcaa 120
ttcaatcgga cgtattggat gcttttatgg aaatgcattt tacacccgat cgaatgatat 180
tctctgctac gaatgtcgat catcaagaga ttgttcagtt ggtagataaa ttcttttcga 240
gtatgcaacc atctcctcga caatatattc gtccaaaggc aatatatacc ggtggaga 298

<210> 5416

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D3

<400> 5416

gtaaggtcag gaattcccggt gtcgaccac gcgtacgccc actaggagat aaaaaattta 60
tccgggagca aaaagataca aattttgctg atatttttat gaactaagtc aggtgttttc 120
tcatgtagcg acgttgcaac aaaaaaccac gacaatccac gacgctgtgg aggtctgaac 180

gaacgagaaa atggaagatg agatggctaa ggtgtggcta ttcaccgacg caaataatcc 240
 caagttctgg acgcgtaaat gagaatgctc agtgtgcat attagattcc tggaattata 300
 catcaaaaat aattgcaact taaattctca aaatttaca gtattcttgc accgacgaat 360
 actgcttgcg ttagttttgc ttgaagctca cccggaaagt tttcgtgcg catgaagcag 420
 tgaagataag tgaaatcttt gttg 444

<210> 5417
 <211> 402
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-065-Q1-E1-E10
 <400> 5417

ggtcaggaat atccgggtcg agccacgcgt ccgcgaaatt ctgaagaaat gtgtaataat 60
 tgtgtaacgg attcttagtg aagaaagcaa ggatgcaagt agaacctgag gaagaagatt 120
 ttttaccaga agaagaagaa caagttgaag aacattctca accgtcacat ctggttcaag 180
 aacaaccgga aacgaccaag aacacagaga acgaagagga atccgatgcg gttgaagacg 240
 aagagattgt gcgtctacag aaacagaagg acagggagag atttgcttcc ttggatgaag 300

aggaacagga acgctacgaa tattatcgta tgggagattt ggataaaaac aaagtgaaaa 360
 aactggtttc gatggccaat cctgccttat ctatgatgca ac 402

<210> 5418
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-E11
 <400> 5418

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 aaggagactt ttataggatg gaaagttctg ttctttcgag tagtttggtg tgtagttcaa 120
 catagcattc actagtataa ttcgtataac ggttctcttc cttttctagt ctagaccctt 180
 ttaaaggaat gctacactca aagtcttcta ctttgaactg tgctcaagct gcttcagcaa 240
 caaccattag atcccattcc aatgaaacgc agcagcaagt gcccaacaca ggctcttata 300

tttcttttca ggctcccaac tcttacgaag aggcgaaacc aaaactagca gcactcgact 360
 cgagcagtga gtgggagagc gacgtacgcc aagaacagaa aacccccgcg tctggttttc 420
 ctggga 426

<210> 5419
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-E4
 <400> 5419

aattcccggg tgcacccacg cgtacgctac ttggaacaac tcctcctaaa gcacaatgcc 60
 cacggcaatg cattgagtct aaagacgttg cgcgatggct tagattttta ttttccaaac 120
 aaaagtgcag cgcttcaatt tgtagagttt ttgcatcgcg ttgtcccagt acgcatgaaa 180
 aactccgacg atttggtttc tcatgacccc cacaacacta cctacaaata caaatattct 240
 ttttccgcag agttgcccc agtttgtang gatgacttgg tttgtttacc gaaaaaagta 300
 tccaccagtt taggcgggact aggtccattg gtattggtga ccaaagtatc ccaaaatctt 360

tgtttcatcg attcgtggac gtttcaaacc ggagaatttt ccggatatca atattggnag 420
 aatc 424

<210> 5420
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-065-Q1-E1-E5
 <400> 5420

aggcaccggt caggaaattc cggctcgacc cacgcgtacg cccacgcgtc cgtcacaatc 60
 gagtgttatt tttttgaaac tattctagtg catgcttaaa gcggatgctc ctgaacaatg 120
 cgacgactac agagaagact acaaggagtg tctttggcac aagaagcagg taacttttgt 180
 tttttaggtg tcggaatttt gtaaactgtg attttttgta aagctggcgc gaaaatactt 240
 ggtagataag gaaatcagaa gacgaaagaa actcggctctc cctatacctt cgggtgatga 300

agacgacaac gagcaacagc agtaacgatt ggagagtttt atttttctgt agaaagggat 360
cagctgtttt caataaaaag ttactagtc tcgg 394

<210> 5421
<211> 408
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-E9

<400> 5421

ggtcaggaat taccgggccg acccacgcgt cagcggagc gtgggtgtcg aaagaacgtg 60
ctgtgaagtg agagaacgta cgagaaagcc aagtgaggaa aagaaggcaa gtagagggcg 120
gcccagaaaa ggagagggcg taagacgtga tacagagtag gaagaaaaga gaagagagct 180
agaaaggagg taaaagaaga gtaaaaggac tagaagaggt acggaattca cgaggaagga 240
gcgtgaagga aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga 300
acggattttg tacacactgc ccgtcaagtt ctggaagtgt gctaggaata agcaggagaa 360
gtagaagaga gtaggaaaag aagaaaggaa gtgaagacgt aagacgtg 408

<210> 5422
<211> 439
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-F2

<400> 5422

aggtacacgg ttcggaattc ccggctcgac ccacgcgtac ggctattgca agatgtcaac 60
tgatattac gaaagacccg cacccaattc tccacaaagg atggcgacca agccttgcaa 120
accctactca gcaaggctcg ttttccagtc ctcttggtt tgaaaaatct ggctcggctc 180
cacggcatgc actggtcgac gtgtcagtcg gtactcaagt cgttgattct atcgtacaaa 240
gtgctccatc aagtattctc catacagttg cattgcttga ccaccacctc ttctaccatc 300
accatccaac tggccaactt tgtatggaca gaatacacac cggtggtcta cttgtttatc 360
ccttttatga acccatagca aaccaaccac cgtgcaaaac ccaaggctgc caaagaatcg 420
cgatggattc cccaattga 439

<210> 5423
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-F4

 <400> 5423

 gtaacggtac ggaattcccg gctcgaccca cgcgtacgtg ctatgatttt acgctttgat 60
 tggcggaacc cgagaaacga gagtgatgag gagattaaaa tgccttattt taaaacggtg 120
 gtagctgcat atgtatttgg actggcgctt acttttttgg cggttgacgt ttttcatgca 180
 gctcagccgg cactattgta tctggttcca tgttgctctg gatccgtaac ttgtctgtct 240
 tttattcgag ctgaatttaa acagttggtg aaatacgatg agtccaagga cgaaaaaact 300
 aaaaattagt ggtcataaaa aatattcgct tccacaggtt tgtgcttgct tcaagagttg 360
 acgagtatca agcccacagc ttttagctat ttcaactatt ttgctgtact ctagttcgtg 420
 aagcgaagaa agcacggtac aatcaagcat c 451

<210> 5424
 <211> 269
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-G1

 <400> 5424

 gaattcncgg ctcgacccac acgtacgcc acgcgtccgc ccacgcgtcc gacaaagtct 60
 gtcaagaaca gagaaagaga atgacaattc agatatcaac tcgtcgtaaa caccgtttca 120
 agaaacctgt tccaaaaacg acagctccac ggacaaaaca ggtaacaaac tgacaaggga 180
 acttgctgca atttgcattc atacacattc aaagagaact cccaagaaa aacttggatt 240
 ttgaaaagtt cccctccatg aacttaaat 269

<210> 5425
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-G10

<400> 5425

ggtcaggaat atccgggtcg agccacgcgt cagggcagtt aggcaatggt tgcttatttt 60
catatgtctt tcggctctgt taggttcaac tttggctgct tctggtgcaa cttctattta 120
ctcgttgctt cagagtaaaa gagactatac ttttacagtg caaagcatag agctggctaa 180
tctaacagac gtatacaaca gcagtgtatt gggctttacc tttcttgctt ccaatgacac 240
tgcttggaag caatcaagag ccaatgtcac tgggtgcactt agtgcagcaa aacaaaacgt 300
aacaggagca atagcgtttc tagaacgctt gatagcagca agcacagtga ataaaacggt 360
ggagtttagt aagctctcta gtggtacg 388

<210> 5426

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-G11

<400> 5426

ggtcaggaat atccgggtcg gcccacgcgt ccgggaagaa catgaaagca gaaatggcag 60
cgagagaagc agcagcagca caacaagcga gattagcaga gtgggaagaa tggagtggag 120
aaggaagagg agacactagt ccaagttcgg atccattaac ttttaccaaa ctttatgtgg 180
gttctattca cttttctatt agtgaagaag atttacgcac tatttttgag ctttttgggg 240
aagtcgtttc cttgcagctt cacaaggacc ctgaaacggg acgttcacga ggttttggtt 300
ttgttcaata cagaaaccac gaagatgcga aaaaggcatt ggaacagttg aatggacttg 360
atcttgctgg taggccttta naggttggtt tggcaactgc agagactcag aaa 413

<210> 5427

<211> 295

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-G4

<400> 5427

ggtaacgagt caggaattcc cgggattgaa gttccgcagg atggcgcctt ctctaggcaa 60

actttggggtt tatccttcgg gagtgggtttt tctaggtgca gctggtggtt tgtatgggtt 120
gcaacacgat aaattgccac tagagagagt ccagtttgca aaaacctttt caaagcccg 180
ttcacaagca gataatcaag ttgttcgagc aacaccggaa gaatgcgatt gtcttccgct 240
ttggcagtgt atgactagtg gccaaagacga ctgttctcaa cttgaacgtg aactg 295

<210> 5428
<211> 275
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-G5
<400> 5428

ggctcgaccc acgcgtacgc ccacgcgtct gcaattgtct ttgttggtgtt gtttaatatg 60
ttgggtttcg tgcacctcgt gagtccaaac aagatatctt caaaaggag ctttgtaaca 120
tgccctgttc tatccaagaa acgagtatcc ccgtctaaga gagcaactat tgtggcttcg 180
tcatttggtg tgaacggttc caaaatggga tcacagggcg gtgtcaagtg taaattctct 240
ggcgtaccaa aaccattggc gttggttcaa aaact 275

<210> 5429
<211> 414
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-H1
<400> 5429

aggtacaggt tcggaattcc cggtcgacc cagcgtacg gctcaacgcc cacttttctt 60
ccactcaaatt attggctttg gtagcagacg tttccaacgc tgatcaagtc aaccaagcta 120
tttcacagtt tgcttccaag tttggctcgg tggatattgc atgtaataat gctggaatcg 180
tgtttagtgg aacagaagac aagtatgctt ctgaaaatgc ttccgtggag cagtggaaaa 240
agacattaga tgtcgacttg acaggagtat ttatatgttg tcaggcggaa gcgaaatgga 300
tgcttcaca acattatgga aaaataatca aactgcctc catgtcagca catattgtga 360
atcatcctca aaaacaggcc gcctataatg cagctaaagc aagtgtagta caac 414

<210> 5430

<211> 413
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-H4

 <400> 5430

 aggtataggt acggaattcc cggctcgacc cacgcgtacg tgttgggcct tgtggtggtg 60
 atgccctgga ttgagctacg tagtggcaac tccgctgtct tgaaagacat aactgcaagt 120
 attgaaaagc ctgacataaa atggataact aggacgaatc tcagtacttg tctgaattct 180
 gcagaaggaa atgttacggt tgacttgctg cggcagtgtg gcttgaagga tatattttca 240
 ttgaagcttc tcgacaataa ctttaagttg gcgtgtttta atgatgcctt gtttttagtt 300
 ttaccaggct taccctttgt tattactggt aatcgatat tctgtagacg ctcggacttg 360
 aatgaaacgg aagcattgga gtcctgcttt tcgtttatga agatatgcc acg 413

<210> 5431
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-A10

<400> 5431

 cgggtcgacc cacgacgtcc ggcactgtct agtcgtccaa ctcagcgaac cagcaataac 60
 tgtgaaaatg cagtaaaacta gcagtaggac ggaaagaccc cataattctt gactagatag 120
 gtttagggag gagagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact 180
 gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 240
 aagtaaagcc taagaaagag taaattagc aagcaaaggc atgagagaag tataatagca 300
 gaagcatgct tgaagaaaaa gaaagagatt tcagaaaggg aagaaaagtc agctatagag 360
 aacaggtgaa ggagaactcc aaaag 385

<210> 5432
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-A11

<400> 5432

gtcaggagtt cccgggtcga cccaagcgtc agcccacgcg tccgcccacg cgtccgtcta 60
atttgaactt taataccagt ttcttagctg aagtgtatatt tcgaatggga gcgattcaag 120
agataaaaacg aaactttgct gctgcaaaag agttttatatt gaaagcattg aaagagaatc 180
cgaaccacgc aaagtcgttg caacagttgg gttggattga acatgaagaa ggtcggttcag 240
atgaaggctt taaaatatta aaacgagctg ttgaagcaga tcctaacgat ggtcagggat 300
ggatatttgtt aggaagactg cacatggcaa aaaaggaata tcgttctgcg tacgataatt 360
atcaacgtgc agtttattgc aatagtcgaa atccgcggtt ttg 403

<210> 5433

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A12

<400> 5433

ccgggtcgac ccacgacgtc agcccacgcg tccgcatttt tctttgggag aaatacgacg 60
tcttcgactc atggcaccta agaagacatc gaaagtagca cctcatcctg aagctctggt 120
taaaaaagaa aataaggaga aacagaaaga gaaaaaccct cttttcgaaa gcagaccac 180
gaactttggt attggtggag atgtataacc aaagagagat gtcactcggt ttgttcgata 240
tcgcagatat gttcgtcttc aaagacatcg agtgggtcac atgtcgagac tcaagggtcg 300
acctgcaatc caccagttta cgcatacctt ggatacaaac gtttccaaac agctattcag 360
cttgtaaatg acatatacat cagagtctag gttggaaaag agaatgcgcc tacgtgaaat 420
ggcataagct 430

<210> 5434

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-A4

<400> 5434

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ggagcctttg tgagtcgatg ttgtcggcac aaccgcaaga cgaggaagaa caaccacaag 120
 aagagaatgt tgtgcagaat atttacggtt taggttcttt tgaatattca gacagttctt 180
 cgttcgaacg acaaaggaat aaaaagccta ctactttttt gggcaagttt gcaaccactg 240
 tctcagacac gtggaaacag ttttcccaag gttttactga agtttctcaa aaaaaggccc 300
 taaagtaccc aagtctacta tgttttggag actctttaac ggaatattcc caacatatct 360
 ccacttcaga aggaagaggc tggggagctc tgctggctaa tcattattct acaaaggcag 420
 acgtcatcat acgtggcttt gctgggtaca atactc 456

<210> 5435
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-A8
 <400> 5435

cccggctcga cccacacgct agtagagcgt tgcatactcc ttagctttat cgaaaagtgc 60
 acgtcggtta tcatttgcatt tcttctcctt ttggaataac tgctgaatat gctcaccggt 120
 tggaggtagt attcttagga acggcttcca ttgcaggacc tatgctcggt ggacctcact 180
 tgttgacgct ttggatatat ttggggctaa ggttgggtaca aacggtggaa gcgcacagtg 240
 gatatgactt tccttggagt cctcggttatt ggataccttt ttatggagga gcagagtttc 300
 atgattatca tcacaagata tattctggga attatgcttc cagttttatt tggaacgact 360
 atatgtttgg aacggattat gcttatcggt tgtacaaaac aaaagggaat ggatgctt 418

<210> 5436
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-B10
 <400> 5436

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 tatgtgagaa aagctgctct tatgtctcaa gaatatgtgg atagacatcg cgtggcaatg 120

gaaggcgctt cgtcttcaca aagaaattta acacaagggg aagcactgga acaacggaca 180
 agtgcagttt ccttttcaag aactcttcac gacgcttcca gtgactcggc agcaaccgaa 240
 gcacaacaag acttgtcgca ttctgtgact ggaaacacaa gtacacctag aaacttgaag 300
 acaagggaaa atagttggaa tagtatcgct tcaaaggatg cggcagcgtc gaatgtcgtc 360
 gttacaggca gcaacaaaac aagtaaagaa aggaacaaga acgtctcaat caacanaccc 420
 gatagatata atactagtgg aatgac 446

<210> 5437
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B11
 <400> 5437

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 actctgcaga aaagagaaaa tgtaaagtat agagtgtgcg gcctgccaaa tagtagagaa 120
 gaaatcgatg aaagtgaaag cgagtaaaag atgaggtata gagaatggcg gtcctaacag 180
 taaggatcca aaagtagcga agtaaataga cgtttgaaag gcgtccagta tgaaaggaga 240

aaccagtgtg ccaactgtcta gtcgtccaac tcagcgaaac agcaatgact gtgaaaatgc 300
 agtaaactag cagtaggact gaaagacccc ataattcttg actagatagg tttagggagg 360
 agagagaatc atgaagtata agacgtgggg ttagagatga cagaccac 408

<210> 5438
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B2
 <400> 5438

gaccacgcg tcagcccacg cgtccggaac tatcttgctc tggtgcaaca tttctcggga 60
 tatgttaatt ggaaggtcat cggagtccac aataccgaga acaaaagata accaacgagg 120
 tagcaatgca tccttggaac acttatcgga taccaacact cgcttcaaata aaagcttaata 180
 aggagttgat tctgattctt cggaacaaaa gtcgaatggt ggcctttctg gaataaaaag 240

aatacttcga aactccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaaacttaa aaaaaaaaaa aaataaaaaa aaaaaaaata ggggggcctt 360
 ctaaaagatt caaccctacg tcc 383

<210> 5439
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B5
 <400> 5439

cccggtcga cccaagcgtc agcaacttcg ccatgtatga ggcatttcaa gtttcagtgt 60
 ttccgtttcg aagtttaaaa tcgtatagct atgccagtcg ttggtcgaga gccaagactt 120
 gtccgcagtc aaagcatagg acttgtcttg aggttggtgc ttcagtaacc atgtcaagga 180
 gaagtgtctt aaaattagca cttcttactg gagcgttttg gcagttttct gtttggaag 240
 atgcagcttt ggcagatggt gcggtctctt ttgccacaaa gatcacttct cgtcgcagat 300
 acggaccgcg tattcttggg ttagaacacg atatcacctg tctcgaagat tatattcata 360
 atcaagagtg ggacaagata catgaactag tatcggaacg ttatttgaat gccagaata 420

agccaagaac aggtaaattt tggtc 445

<210> 5440
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B6
 <400> 5440

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 gaaaaagtat cacggaccca cagaccttc gtcgctggtt ctcatgaaa aaggtcgaat 120
 gcttctgaaa tccgatgccg tactacgaat tgcagagttg ttggacaatc agacccttcg 180
 tgttttggca gttgcaacca gagtgggatt tccgagtggt ttgagagatt gggatatatac 240
 agaaattata tccaaatata gacgtcaaata atttgagag accgatgttt gtcgtctgat 300
 ggaacctgga tgggaacatc ggttcctttg atggatatat tgttttgttg tatatcagat 360

atctctgttt tggaagaatg aaggagacaa cgagtgcacaa catgatgttc acagttgtga 420
 ttccttcata gttggttgat aaaagaataa t 451

<210> 5441
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B9
 <400> 5441

ccggctcgac ccaagcgccc ggaatgatgt ggtaagagag agggcactta tgagggttgaa 60
 gaagtacagc gacgagatag aagctctcag gagagagtac aaagaaagag aaaaagttag 120
 agaacgttat gatcactatc gtgtcaagtt agagaattta gagaagaaag gaaaagatca 180
 accacgaatt gagcgcaatc agcagaagtt gaaggacgca gaagacgctt atcatgcagt 240
 tactgcagag ttgatacaga aaatggaaac tagttggaag aaacacgttg aaatttttgc 300
 tgaggcgctcg attgctttgt ggcatacaca aatgcttatg attgatgagt tttccaagtc 360
 ctccgaggag atacggcctt atgttcaaga ttacttgaat aacttgaaca caag 414

<210> 5442
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-C10
 <400> 5442

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 acgatggaac aagtgtgcac atacgagaat atttcgcatc aaggtacaat agtagaagag 120
 gcaacgtcgg aatcgtaag tgacgcagaa aacgagcaag gtgcgtatga gcaagaagaa 180
 gcagaagaag atagccatca ccacacacat gaaggaggac acgcgcatga acacacagca 240
 gaagagggaa caaccatata tagcaaagcg gagaagatat ctacaaaagc tttgcagaaa 300
 ttgggtatac actcagtttc aggtgttacg agagtaacta tcaagaagac cagaaatatt 360
 ctgtatgtta tctcccgatc cgatgtttac aagtcggccg ggtcggatac gtatgttatt 420
 tttggggatg caaagat 437

<210> 5443
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C11

 <400> 5443

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 aaatgcaagt agaataattc taaggggccc tgtgtaagga cgaagacaac caccaccaga 120
 aggaaatgtg gaaaagctta gttacttgca gaacaatcaa caactacttt ctgagtaaca 180
 aaagatatct caccacctcc cacgatctgc taccagaacc taccctcact accaccataa 240
 aagagagaat tttggaactc tacaaaacag accccgagaa atgggtcgaaa caagtactag 300
 cttctcgttt caaagtttcc gagcgcacca tcaagtttct catagaaatg gaccagctag 360
 ctcagtcgat agtcgggtgt ntggaccaag aagcaacgca acactttcaa aaaatgtatg 420
 a 421

<210> 5444
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C12

 <400> 5444

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 ccaggggaggt aaaggcgcaa gaaagaaacc caaagcaatt gacgggaatc ggaaaaaggg 120
 gtggatcacg taaattaatc cgatataaac cgagaacctt acctctcaa gaaggtgttg 180
 cacggctgtc gaaagaacgt gctgtgaagt gagagaacgt acgagaaagc caagtgagga 240
 aaagaaggca agtagagggc ggcccagagaa aggagagggc gtaagacgtg atacagagta 300
 ggaagaaaag agaagagagc tagaaaggag gtaaaagaag agtaaaagga ctagaagagg 360
 tacggaattc acgaagaang agcgtgaagg aaggangaat cncaagtaat cgaggaagaa 420
 aaagcttcgg tgaaag 436

<210> 5445
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C4

 <400> 5445

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cacgcgtcag ctgcatggat atgtgcatcc actcaaaacc tggggtagat gtaaaccaaa   60
agaacaacg gttattgtca ttcttagcta gtcaggagcc ttgttatcta tgggaagaag  120
aagatcgtca tcaagaacca caaatagata gtttatatat ctctagtgtc gggtagaagg  180
cgatcatttt aagggacaag atgttggttg ttcacagtgg tcccttgatg gagaacaacg  240
gtgggggtgat ggatgagaat aatagttttg catatttcat gtcttccagt ttttatatca  300
tgtttgtacg tctttgtcta gcggaatata gaaacaagtt gtccgttgaa acagctcagt  360
ggcaagcggt tcaacgcgag ttggatatgc actgtgtctca natatccgct gcaactcggtt  420
tgcacgacaa acg                                                         433
  
```

<210> 5446
 <211> 235
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-C6

 <400> 5446

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aattcccggc tcgaccacaca cgtcaagaca cgcacgcgcg cacacgtcga cgcacgcgtc   60
tgcccatgcy tccggactat agaagtcttg tcaccttgty ttgctttgga tagttgtact  120
aggattcatg aacgaaaatg gaaggaacag gaacttgaaa atctgacaag aatatctcaa  180
ttgaaatgag atcataacta ggtggtggcc atagatttaa agtagtatta tttgt       235
  
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<210> 5447
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-C7

 <400> 5447

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 tggagtaaca ctgtttctag aaccaagaaa cgtacaagtt cccgatattcc gagcagactt 120
 acgttacttt gagttgaacc atggaggcct ctgggtggttt gccggtagcg tcgatttgat 180
 tattttctgct ttgagttctg cgagtatatt tgccaaagag gcacaagtgt tttgtggtca 240
 ctggaagcat ctttgtaaga agcacccgttc cgttattcct tttgttcgtg acccttggca 300
 agagtccatc ccttttg 317

<210> 5448
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D11
 <400> 5448

gtcccggggtc gacccacacg tcagacgccg gaagaaatga cacgtttaga aagtcacttt 60
 gtggaaatgg gtttgaaaca agaagataga attccgttaa agttgaaaat gagtcaagta 120
 gagccattcc gttatagagt ggaagattgc ttgtttaaga ttaaccaagaa tgtgctcaag 180
 gaagctcgag cgacggaaat taggagagag atattgaatt ccgaaaaaat gaaagaatac 240
 tttgccgctc attctttaga ctttgaggcg ttgaaaagtg atcgaccttt gaatacgcca 300
 accaatccac atttggcaga tattccaagc tatctgatgc catccgaact gcgtccactg 360
 aataagaatg tacataaaaa tttgcaatcg aagcaaagca aaaagagaag gaagacggga 420
 cgaccgttcg 430

<210> 5449
 <211> 331
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D6
 <400> 5449

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 gtggcaatcc gctgctgaat agtcggtaca taaacttgag tagggaccac aactggaaca 120
 taatatttgg tcaaggtttc aaatattgtg tgctgtgtgt ctctcactta cacaaatata 180

tacaaattcc aatgaataaa aaaaactgct gcttttccgt ttgaaaaaa aaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa cggcagaggc tcaaaaggat acaggtctac 300
 gtatacgtgc acgcgacttc aaaacccttc t 331

<210> 5450
 <211> 404
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D8
 <400> 5450

aattcccggc tgcaccaca cgtcaggaat aattttacca acaaggaaaa ctttcccttg 60
 ccagttgtga ataaagattg aaaatgatgt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaca caaaaaaaaaa aaaaaaaaaa aaaaaaaaac 180
 aaaaaaaaaa aaaaaaacaa acaaaaaaaaaa caccacaaaaa tcaaaaacac agaccatcaa 240
 aatggggccg cccccccagg gaaccacccc tcagttaccc aacttaaccc ccttgcacca 300
 caccacctt tccccaaaca gcaataccaa cgaccaggtt taaaaccatc cccctcccca 360
 aaaccgcgc acccccaaac gtaaacccca tgcccccaaa cccc 404

<210> 5451
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D9
 <400> 5451

ccggctcgac ccacacgtca gcccacgcgt ccgcccacgc gtccgaaaaa cacagcactc 60
 tgcagaaaag agaaaatgta aagtatagag tgtgcggcct gccaaatagt agagaagaaa 120
 tcgatgaaag tgaaagcgag taaaagatga ggtatagaga atggcggtcc taactgtaag 180
 gatccaaagg tagcgaagta aatagacgtt tgaaaggcgt ccagtatgaa aggagaaacg 240
 agtgtagcac tgtctagtcg tccaactcag cgaaacagca ataactgtga aaatgcagta 300
 aactagcagt aggacggaaa gaccccataa ttcttgacta gataggttta gggaggagag 360
 agaatcatga agtagaggaa gtggggtaag agatgaaaga ccactgcatg 410

<210> 5452
 <211> 355
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-E1

 <400> 5452

 gaccacgcg tcagcccacg cgtccgtatc gaagaaagtc aaaagttggt agttgccaag 60
 aagttggcaa agaagggaaa gaaagtagtc attcgtgacc gaccagatat tattgaagcg 120
 tgtcgacagg agtttggaat tatattttatc tatcaatata aagattcatt gttggagaat 180
 cattcttttag caaataatag caatcatata tatgacaaag tgaatccttg ctcttctttt 240
 tcgacaggag atgttcttcg agatgcagca cttgcaactg tggctaagag acatgggtgga 300
 ttgctctcta cgagtgaatt ggaaaagaaa taaaggaatg ttgttttcat gtttt 355

<210> 5453
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E11

<400> 5453

 aagtcgccgc tcgaccacac cgtcagccca cgcgtccgcc cacgcgtccg agagagttga 60
 acccttttga aagcgagctt ctaagtgggc gtaattgata ccaaatttct ggaaaagaag 120
 ctcgtttttg aagtcagaca aggtacccta gttgtgttca agtacgaaaa acaaaacatg 180
 gcaatacaca agcgcacctt taaagtttca taagcttcct ttggagtagc tccgttttgt 240
 acaagtagcc aaaaacacgt gttatactgg ttgttgatgt ggcagtcacac ttgtctccaa 300
 ctaagataat cgcgaagagt ttgttcggaa ggatatacaa ccacgcgacc gtcaaaggta 360
 ggcttgtaaa agtcaaactt gcctatgaaa aataaagcaa aatctcaccg gaaaaaaaaat 420
 ttaaaaaaag ggcggcccc 439

<210> 5454
 <211> 214
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E12

<400> 5454

aagtccccgc tcgacccaaa cgtcagtttg gccaaagcaa agcacgacga agatacgggt 60
gacaagaaga agacggcagt agcaaaaaaa taaacgaagc gagacattga aacgctgtcg 120
aatggttatg aaagggatgat atcgtgttgt tggttcttat tgggtagttt gttttttcgt 180
atggataaaa aaaaagatag acttgtgtct gtgt 214

<210> 5455

<211> 305

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-E2

<400> 5455

cacgcgtcag ctattataag tggatagaac agttggagca gcttganaga aataattaga 60
aacaatagaa ccggggaaaa aaattcgtaa agatatgaaa ctctttcgaa ataaagggaa 120
gggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaga gaaaaaaaaa 180
gaaaaaaaaa aaaagaaaaa aaaaaaaaaa aaaaaaaaag agaaaaagaa agaaaaaaaa 240
aaaaaagaaa agaaaaaaaa aagggggggg ggcgcaaaag ggtgaaaggt aaaaaagggg 300
gaaag 305

<210> 5456

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E4

<400> 5456

cacgcgtcag attgaaaatc atggtagaca ctaagcttaa ggacggtgct agtgctgctc 60
tttggacttg ccgcctatct ctctatacag ttgtgttagc attttcagca acaataattg 120
gacttgatgg aaggaaggca gataacatat ggaacgatgc cctatattat catggaaaag 180
tggatgaactt ttgtgcatat tcggcttcgt ctgtttttga aggtggcgac catggcgcat 240

gtaaatatgt gatggctttg gcttctatca gcttgatttt agttttcttt ctttggttgg 300
 cctcctttgt cgacgcattg tatccaattc ttacaaagtt ctggtttgtg gagcttggtg 360
 tcaacatatt ccttactatg tgggtggttgg ttggtgcaat tgtggtgact gcaaagcgaa 420
 cttctagtgt tg 432

<210> 5457
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-E5
 <400> 5457

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 agtgaagaga ctaagcaagg acgctgttgt acctcaaaga ggttcgaaac ttgctgcagg 120
 ttatgacatt tgttcctcgg aagactgtat tgtaccagct cgaagtcggt actgtgttaa 180
 aactgacttg gcagtggcga ttccctcggg aactatgga agaatagcac ccagatcagg 240
 acttgcccta aagcatggaa tcgacgtagg agctggtgtt atagatgatg actatcgatg 300
 aaccctcgggt attatttaat ttaatcattc cgaaaaggat ttcaatatac ccaaggaaaa 360

tcaattacct caccttacct aagagagaat atctactccc aaagttgttg aagtggataa 420
 tctcgatagt actac 435

<210> 5458
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-E9
 <400> 5458

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 atcatggttg agacaaaact tcaagatggt gttagtgtt ctctttggac tgttcgtctc 120
 ttctctaca cagttatttt agcattctct gccactatca ttggcttga tggacgtaaa 180
 gcagacaaca tatggaacga cagcttattc tatgatggga agtacattaa cttttgtgct 240
 tattctgcct cttctgttgt agaaggagg gaccatggag cgtgtaaata tgtcatggcg 300

ttggcgtcta taagtittgat tctagtcttt ttcttgtggc tttttacatt tgtagatgcg 360
 ttgtatccta ttcttaccaa gttttggttt attgaattgg gtatcaacgt gtttcaaaca 420
 atg 423

<210> 5459
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-F1
 <400> 5459

acgcgtcagc gatttttggga tgacaggaga tgaataagct tccacgttta cctaaagaag 60
 tagacgaact gggaacgaca caaactacag caaagggtcc attttataaa gacagcgagg 120
 aagaaaatat gaacaattct agtgaggaag ataataatca agtagagaat gaacctgata 180
 gtggtcacag tgcttcgaca cctataccca tatectctca aagtactggg aagcctttgc 240
 tctcttcaaa gggtgagtct ttgggggttt ctacaacaga aggtgaagga actcttctga 300
 gcattgtgag tcctcgggtg tttctgcccg cggataaacg ggagaagaat caagcagttt 360
 cgtttcgtcg tattcaaagt ttaaacaaga acaggaaatg t 401

<210> 5460
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-F10
 <400> 5460

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 aaaccgcttt acatgaaacg ttgatgacg caaaccatga aatgggtcct aacaagaaga 120
 gcaggacctg caaagtgaat gaagaccatc cttctacgca acagtaacca cttaaagaga 180
 actttacgat acagtcttaa taatgggtgct cgagatagat tgtagccatt tacctcagtg 240
 gaaatactgt attgaactct ttcgatattt cttcaataat atctgttgta agcattgac 300
 gttgttttct cttaaagtgt tggagagaac atcttcgagt catcgacat gcactataaa 360
 cagggataaa ccttgaatag tgattttggt tagttttaaa a 401

<210> 5461
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F11

 <400> 5461

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 agttgggttg tttctggact ttaaggcatc tctcttctct tgttgggtgtg actgttggtta 120
 gatattgtga aagatgggag tcaaagttgg tattaatggg tttgggagaa ttggaaggct 180
 agttcttaga gctgctttgg agaaacagtc tgtagatgtg gtagctatca acgatccctt 240
 tattgatttg gactatatgg tctacatggt caaatatgac tctgtgcacg gcgcttatcc 300
 aggtacagtg gtagcaaaga atggaaaact tgctgtggat ggacacgaaa tggcagtggt 360
 tgccctccgt gaccctagtg agatcccttg gtcctctact ggagcagaat atattgtgga 420
 atcaacagga gtatttactg ctgcagata 449

<210> 5462
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F12

 <400> 5462

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 caagtgtttc tttgatattg ctatcgggtg acaacctgca ggaaggattg tattcgagtt 120
 gttctccgat gtcgttccta aaaccgcgga aaatttccgt gccctgtgta ccggtgagaa 180
 agggtttggg tacaaagact ccaagtttca taggatcatt cccagttca tgtgccaagg 240
 tggagacttt acacgcggcg atggaaccgg tggcaagagt atttacggca ccaagtttga 300
 ggatgaaaac ttcaagttga agcattcgga gcccttttta ttgtccatgg ccaatgcggg 360
 accgaatacc aacggaagtc agtttttcat tacggtagtg aagacacctt ggttggatgg 420
 gaagcatgtg 430

<210> 5463

<211> 409
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F6

 <400> 5463

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 gcagaaattg ctagaacaca gaagaacaag gcaactatgg gccacttggg gctcttgaaa 120
 gccaaactag caaagcttcg tcgagagttg ttggcgccac ccaaggggtg tggcgggtga 180
 ggcgaaggat tcgatgtcac gaaaaccggt gatgctagaa taggtcttgt atggtttcct 240
 tctgtgggaa agtctacgtt gctgaacaag ttgacaaaca cagaatcaga ggttgctgca 300
 tatgaattca ccactaac ttgtatccct ggtaatttat cacaagggcg ccaaacttca 360
 gctacttgat ttaccggaa ttatagaaag agcaaaggat ggaaaggga 409

<210> 5464
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F9

<400> 5464

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 cagccgcagc agcagccgca gcagcagcag gaatggggta ctttaacgcg ggttatccta 120
 cgacaggaga gatgcctatg tatgccaaacc caacgtcagt ctatagcaat gattcggttt 180
 cccaacaaga gagcgactcg aagaagagtg gtcgcagcag tggaagcagt cgtagaacct 240
 ctggaaagaa cgagcggttat catccttatg agcgttgaac gaacattact tgccacgttc 300
 cacgtttaac tggggcaaaa gcagaacgaa tcagacaaag ttaactggc tgatatctta 360
 tgtggattta gaattacttg aaaaggaatg gtttttgggt caagtacaaa atacattaca 420
 agagtgagtg gctgc 435

<210> 5465
 <211> 319
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G1

<400> 5465

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acgtcgacga tgcctaaaca aatcaaagat atcaaggaat ttctgctttt ggtccgcaga 120
aaggatgcga gagccatcac aataaagaaa aacaagacca acacgaaatt caaagtccgt 180
tgcagcagat atttgtatac tttggtagt aaagaaaagg acaaggcgaa caagttggaa 240
caaagtcttc caccaggttt gactttgaaa aagattgatt agaaataaac tctatcgttg 300
ttgttcttgt gatggaaaa 319

<210> 5466

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-G11

<400> 5466

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~~cttggetaat tgtegecagt aacttgtett egtegttett ettattatta tgagtgaaaa 120~~
ggtggagaat ggtactaata acgagttggt agaaaaaccg agggttgtga tatttggtgc 180
tggaggcgta ggtggttatt tggctgccag accttcagag tgtggacgta gctttgttca 240
cgtcatcgcc agaggttctc acttgaaagc tattcaggaa aataacaatt gcatcgtttt 300
aaaaagtatc gatggtgact gcacttccca attggatagc atcggggagg acgcacaaag 360
tgtgttgaac actgcgacaa ctncgtaga tgccgtgata ttacttgca aaatggacca 420
gttggtgct gc 432

<210> 5467

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G12

<400> 5467

ccggctcgac ccaaacgtca ggagaatatt tgcttctgaa aagttcgagg aaaaggttgt 60

aaagaagaat gtaaacggaa acaaaggcaa gaaaaactcc ttttggtcgt ctcttccagt 120
gagccctggt gtactgggtt ttattttatt tgttgactt ggtagcagtt tccttcctat 180
catacgggca gcttttggtg ggaaattggg tattgaaact gttccagagc tgtaaagtgg 240
agggacaacg acagtctgga ataagtggcg ctctggcact gtagtaaac aactggtgac 300
aataaaacat cactgctgaa acaagtattg cataatctaa aactttgttt tacttcaaaa 360
aaaaaaaaa aaaaaaaaaa ataaaaatat atcaatataa acatacaaaa taaa 414

<210> 5468
<211> 384
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G9

<400> 5468
gaccacgac gtcaggggaa gctcaagaga gaataaaagt agcccaggaa caattaatga 60
ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaagggcag aaacacaaaa ggataaaaaa attgagtaca catacatgca aagggcggtc 180
tttttctagg-ttgteacett-atttcaette-actggcgcgc-ttttttcctt-ttcattattc-240
ggcatatatt ttgattttac gtcctcgtt ttccttgcat catatcggca tttccccggc 300
ttgcctcata tcaatcttgc tcgaaccgat ccccttccc aacatttgct taccctgaat 360
ggggcctgga attttccctt ttcc 384

<210> 5469
<211> 73
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-H10

<400> 5469
ccaaaaggat ccaagcttac ttccccttgc aagcaacgac aaagccctcc gggacggccc 60
ccaaaattca atc 73

<210> 5470
<211> 385

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-H4

 <400> 5470

 gtcaggaagt cccggctcga cccacgcgca aagacctgta atcatgtgga gagtcagaag 60
 aagaagcttc cgtgaatctc aacgccatga atcaagtgga gatgatcaag ccttggaaac 120
 tttccttttc ttacggacgt gctttgcagt cttcatgtct gaaagcatgg caaggaaagg 180
 cagagaatgt ccgagcggca caagaagcct ttttagttcg tgcaaaagca aatagtgagg 240
 ctactttggg taaatatgct ggaggtactg ggaatagcga atctttgttt gtcaaagatt 300
 ataagtacta agggaggaca tatctccagt ttacctctta tgtgtgttgg cctgaataaa 360
 ctttcttgat agtaaccttt tagtt 385

<210> 5471
 <211> 216
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-H8

 <400> 5471

aattcccggc tcgaccacg cgccaagaac gggagtcgta agaaggcctg aaatagtcaa 60
 atacttcata tttgactttg aaaggtggat gaatttcact aaagagatga aagcacgtcg 120
 tcaagaatct ggagataccg gtggctgtgt gtaactttat aaaacaagat agttttatca 180
 cgtcgactct ataaagatct catgagattc ttccct 216

<210> 5472
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-H9

 <400> 5472

ggtacaggtc aggaattccc ggctcgaccc acgacgtcag atcacaaaag aacaagagga 60
 agagtttcgc gaagctttta cgttattcga caaagacggg gatggtaggg cttgttcttc 120

caaagtgcacat gggagcgcag tatcaaacac gtcgttttagg taacatcaca gtaaaggaac 180
 tcgggtacggg ggtccgttcc ttgggtcaga gtcctacgga agcagagttg aaagaaatga 240
 tagcagaagt tgacaaggat ggaaacggca ccatcgactt tcaaggtact acatgcttct 300
 gtccgtangg ttggagaaga ctctgactgg aacgaatatg ctcttagagt ttctcgactt 360
 gatgtccagg catatgagac aagcagatac agaagaagag atacgtgaag cgctcaaagt 420
 ttctgataag gatggaaac 439

<210> 5473
 <211> 382
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-A1
 <400> 5473

tccggggccga cccacgcgctc agtgaagaga ttgcaagaag ataatatattt gaatagagca 60
 ctatcacaac caggagatgt atttctgtgc ttttgcaaca tccagttgtt ggtgaatgca 120
 gaaagagcta ttataggaaa tattacttgt cgagaaagta tcgaattgtg tcgtcgatta 180
 gctggacata tagcggtttg gttcgatgaa catttggatg actttcgttt ggaagctatc 240

ttgggagcac tattgtgtac ttgttattgt gagtgggaagc gttttgaagg agaattgggg 300
 gtacaagact ggaatgaatt ggagaagata tcttccttag atacttgga gcttgtgctt 360
 ggtacaagac aaagaatgga ta 382

<210> 5474
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-A2
 <400> 5474

ggtcaggaat atccggggccg agccacgcgt cagcccaagc gtccgataac cacatatgcg 60
 acacgaagct cgcttcttac caaaagttgc caaacaaca gaacatacgt aacctatttg 120
 aatcttttct ccaactttcaa aacacaaggc actattatcg acaataggca taactggaaa 180
 atgaaaatac tttctagcat ctcgattcta gcacacacaa gtatccagtg ggccctgttt 240

ctaacgggag acgaagaact ctacttacgg ggaaatataa attacacaag taattcagta 300
gaggaataga ctccgactgc tgtggcctaa aatagatacc tccagtgaga taagcagcat 360
tttgcaagag ggatgagttc tcttcctcat ttaagtcaca aacat 405

<210> 5475
<211> 219
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-A3
<400> 5475

gtcaggagtt cccggctacg acctaaggct gaagcagcag caaatggtaa cgtatcgttt 60
ttcgaatatt ttgcacctgt ttattactat gtacctggct atcctcagtc ttattggtat 120
aatccacaat ggggaccaa tttttcacgt agttcacaaa gtaagaacct acttgaaagc 180
gacgttgctt tgaaagagaa tcgaagacag aaaaataaa 219

<210> 5476
<211> 398
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-067-Q1-E1-A5

<400> 5476
tcccgggctc gaccaagcg tcaaaagaaa ccaaagcaa ttgacgggaa tcggaaaaag 60
gggtggatca cgtaaattaa tccgataaac cgagaacctt acctctcaa gaaggtgttg 120
cacggctgtc gaaagaacgt gctgtgaact gagagaacgt acgagaaagc caagtgagga 180
aaagaaggca agtagagggc ggcccagagaa aggagagggc gtaagacgtg atacagagta 240
cgaagaaaag agaagagagc tagaaaggag gtaaaagaag agtaggagga ctagaagagg 300
tacggaattc acgaagaagg agcgtgaagg aaggangaat cccaagtaat cgaggaagaa 360
aaagcttcgg tgaaagcgtg aacggatttt gtacacac 398

<210> 5477
<211> 423
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A8

<400> 5477

aggtaatggt caggaagtcc cggctcgacc cacacgtcag cggacgcgtg ggcggacgcg 60
tgggttcgag gagagagaga gagacagaca gatggccaac gctgggtcaag atggccttgt 120
gcaagtcaac aagcatagaa gagtaaagag attgcaagaa gatgagattt tgaagagagc 180
actatcacia ccaggagatg tagttctgtg cttttgcaac atccagttgt tgggtgaatgc 240
agaaagagct attataggaa atattacttg tccagaaagt atcgaattgt gtcgtcgagt 300
agctggacat atagcagttt ggttcgatga acatttggat gactttcgtt tggaagctat 360
cttgggagca ctattgtgta cttgttattg ttagtggaag cgttttgaac gagaaattgg 420
ggg 423

<210> 5478

<211> 353

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-067-Q1-E1-B4

<400> 5478

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tcgctgtang aacaacgaca taaaatgtct gttttattac aaagttcgga ttttcaacac 120
attcttcgta ttctgaatac caacattgat ggcaagagga aagttatgta tgcgttaacc 180
gccataaaag gtgtgggtac acgtttctcc aatttagtcg taaaaaaggc agaagttgac 240
ctgagtaagc gtgctggaga tttgacgtcg gaagacattg accgcataat caccatcatg 300
cagaaccccc gacagtttaa aataccagat tggttcctca acagacaaaa tga 353

<210> 5479

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-B8

<400> 5479

aggtaatggt caggaattcc cggctcgacc cacacgtcag cccacgcgtc cgcccacgcg 60
 tccgcccacg cgtccgtaga aagggagtcg ccacttgaag aattgggtcaa ggatgagtaa 120
 acggaaaagt aacaactccc ttgccgagga agaaacgggt gtgcgggtttt tagaacagaa 180
 caacagcaaa atcgaccctt tagcgttcaa aacattgtgg atgcactatc gaaagaagga 240
 ataaagaagg catcttgtga gaaaattcta actagcctag tcgaaaagga agtagtatca 300
 gtgaaggaat atggaaaggc aaagatatat ctatttcgac aggacactat tgagatacca 360
 gataagaaag aagtggaaga gatggacgag cagttaaagt cgaaagaaga agaatatgc 419

<210> 5480
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-C3

<400> 5480
 cacgcgtcag agaaaatgaa agcacagaag aatgtaaagt gttagagtaa aaaccataaa 60
 ggaagtaaaa gcgggaatct gagaggagga aagccacatt gggactgaga aagggtccaa 120
 acaagagaag tcagcagtgg ggaaaattgg gcaatgtaca gggaagtatg acccagtaat 180
 gaggagtgga gtaaacagaa aaggaagtag aaggagggaa tgaagggaag ttatggcaaa 240
 aacacgtgcc aacagcagcg gtaaacgtg tgtagcaagc gtagagcaga agaactgggt 300
 gtaaaggtcg agtagtagag taagtgtaaa agggaaagga aaggagag 348

<210> 5481
 <211> 141
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-D10

<400> 5481
 acgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagg 60
 aagacgcaca aaaggataaa aaacttaaata acacatggat gcaacgctct tggtcttcta 120
 ttttgtctcc tacgttcatt t 141

<210> 5482

<211> 332
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-D6

 <400> 5482

 cccggctcga cccaagcgtc aggggagggga ggatgatggt ttggttgagg ttatgggtgg 60
 ggttgacagg gatggcacgt ttcgctgagg cgataggtgc ctggtggaac ccatcctcgc 120
 ccatcgatac catctaccga aacattgcac catcgcatct gctcgcatct ccagtggatg 180
 aagcgtcgtc gtcggttgga agccgcttat atgccacctg gttatttctt tcgaccgttg 240
 tgcgatgtag ttttatgcta tcttcagagt tttccgtgag tctagccgtc gtcaccttgg 300
 acacctatgt cgtcccggtg gtgcactttg ca 332

<210> 5483
 <211> 371
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-E1

 <400> 5483

cccacgcgtc aggtcgaggg acgacgagtc ggtgagaagc gctttgcaac gttacattca 60
 agttgaaacc aaaggacaag ttgaaaattg ttgtgttcgt tgccggttga gaacacttgg 120
 agtaccatgt aagctagctg gttgtgatgt ctactgcttg ccgcaaccta ctttggaacg 180
 actctgtgag gtgaacaaca accacacaga ggcttgtgca aatagttgca aactgtgttt 240
 gggactattg acggatcaag tggtgcagta gttttgtagc gttattcaaa cgaaattaaa 300
 ggagtttcaa gtggacgata cattccgaat aagtgtcaag ttgtgtgagt cgtataaaga 360
 tcaactgctg c 371

<210> 5484
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-067-Q1-E1-E10

 <400> 5484

ggtaccggtc gggaattccc ggctcgaccc acgcgtacgg gcagagtatg aagtagagct 60
 ggcggaaaat gaccgcgttg gggacttttt tgtcaagttt catgggtccc tagatacacc 120
 ctatgaaggt ggtgtatgga aagtacatgt cactctacca gaagcctatc cctacaagtc 180
 accttctatt ggctttgtga accgtattta tcacccaat gtcgacgaaa tgtcaggttc 240
 cgtttgtctg gacgtcatca atcaaacttg gtcacctatg tttgacttgg tcaatatttt 300
 tgaagtattt ttgcctcaac ttttgaccta tcctaacccc tcggaccctt tgaatggtga 360
 ggcagcggct ttggaaatga nggaaccgga aa 392

<210> 5485
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-E12
 <400> 5485

ggtaacggtc aggaattccc ggctcgaccc acgcgtacga tgggagaatg acagtggaca 60
 aggaaaggaa agaacctacc tcctcctacc cagcagagtg ggaacagcat cgtatcgtcc 120
 agtccaactt gtttcgtcaa caagtagaaa cctttttgcg tcctattcca aaggatgtgc 180
 aacaaagaat ggaacgaatt gcggaagcct tgttattaca acctcaagac acgttgatag 240
 atgtgggttg tggaacagga gccatggtac cttttattca caagtatatt cttttatctc 300
 acatttggtt gtgtgactgc agtgaagcca tgttagaaca agccaagaaa aggtttccc 360
 agtgtcattc gattcactgc gactttttaa agttgcaaca agcaccggag aagac 415

<210> 5486
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-E6
 <400> 5486

gaattcccgg ctgacccaa gcgtcagcgg acgcgtgggt caccacgct tccggaattc 60
 ctgtggactg gtggtcactt cgtactttga tgtgtgacat gttgaccgga ctgccgccat 120
 tttagtcaca aaatttgaac tcgatgtatt aacagatatt gaaagcagaa ctgaagctca 180

cttctgatcc gaacattctc tcccagatg caaggaatct gatacaggca ttgttgcaac 240
 gtgatcctca taaacgttta ggtactggac caatacgagc gcatgaaatc aattaacatc 300
 ctttctttcg ttgtatagat ttcgaaaaat tgtatagaag agaaattgag gcaccttgga 360
 agcctcctat gctttctgat gaccata 387

<210> 5487
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-F1
 <400> 5487

cacgcgtcag gtgcttttcg tatttccagt tctgtcattg caaggagaag gaagtcggtt 60
 gctttccgaa gtatggttct ttaaaaagtg gggacctctt atcatataaa tatagatatg 120
 gacattgtat gtacctattt caatatttat attccataat agagagatga aacattgtat 180
 agaccgttgt gttgtcttgg aaacctcgta gaaaacccaa gtttctccct ggggaggaat 240
 tgaccaatgg acacacaagg catccagaag cagcaaacgc actttggaga aagttggtgg 300
 aactccatct atcattgttg ttgtggtgaa cgatggtggt gttacaagtc acggattcca 360
 agaccaagaa aacatatgaa ataaat 386

<210> 5488
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-F10
 <400> 5488

ggtaacggta aggaattccc ggctcgaccc acgcgtacgc ataccgctgg gacagttggc 60
 gttttctatc tatgctggtt atctattctt cggtccacac tacattcacc aagtaccttc 120
 caaagaccaa accattggtg tgagtttatt ggtatattgt gtatttgtgg gtatttgtgt 180
 gacttttgtg gttgtcaccg gatggttgac tcgaggcagg gtaatcgaaa ttcgtcaaca 240
 tgtagtgaaa aacaaatcca cacaacaagc aacaagttgg ttgcagtttt attgccatcg 300
 atatttgggc ataggaaaac cgctttgtat ccaagtgaaa gttggcaatg tacgacagat 360

aggcaacgtg gaaaggttgg caaggtttgg tgcgttgccc aat 403

<210> 5489
<211> 310
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F12

<400> 5489

ggtaacggtc ggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc ggcaaatagg 60
aatatatgga tttaacaagga caagccactt gtgaaaaata taccaaaaaa ggcattcttgt 120
ggacaacggtt ggctgccttg atcgttggac tagtcacaga cgattacctg cgaatgggttc 180
aagtatttat attgggagta gttttggtag ctatgggcgt acttttcccc tggccatggt 240
attcaagaca tccacttgtg tttgtccacg ccgcaaccaa aaacaacaat aataacaacc 300
attcttaacc 310

<210> 5490
<211> 351
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F4

<400> 5490

cccacgcgtc aggagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact 60
gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 120
aagtaaagcc taagaaagag taaattagga aagcaaaggc atgagagaag tataatagca 180
gaagcatgct tgaagaaaaa gaaagagatt tcagaaaggg aagaaaagtc agctatagag 240
aacaggtgaa ggagaactca aaaagaggag agcaacgaac gatcgaagaa gaaacttttg 300
gggtaacagg ttaatgtggt gttagagaac gtatcaagca ccacgattga c 351

<210> 5491
<211> 349
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F5

<400> 5491

ttcccgggcc gaccacgcg tcagaaagga cactgcgttt gaaacagaga gtaagaagaa 60
ggggcggaag aaacgaagaa acaagtcgaa caagaagaat gaaatatcaa atcgatgcaa 120
tgtatgcggt gaaaatttta cttctagaaa caaacttttt gagcatatca gaacggaggg 180
tcattgcttta cgagtttcgt aaggtataat tgtttttgca tccacttttt gcaaatagta 240
gcaaagtacc gactagttaa tagtttagcaa ttctcagtgt accgtgttat ttatacgaaa 300
ttttgaaaca acttgattac atataaagtg catatagata gatcctttc 349

<210> 5492

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F6

<400> 5492

gaattcccg ctcgaccac agcgtcagat tttatatttc agtcgcgaaa attgcgcaag 60
gctcaagagg agaacttcgc atggattggg tgagacttat actgagattc ctccatattc 120
gaagtggaac aaccacaacc gatcacgaaa actcacatgg agtccacgtt atttcgaaag 180
accaagtagt tacatctaca gcgactcaac aacctttgcg ccgcgctcgt caaagaaagc 240
ctatgaatac tccaaacttc tttgcatcaa gatgctgttt accagttttt ggcgatgaaa 300
tagttggaat atttgtaaata tgtgatactg taatgggtgca tcggagcaat tgtacctcca 360
cgagtagttt agatgactct tttcaacgct ttcatttgct ctggaaaaa 409

<210> 5493

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F8

<400> 5493

gaattcccg ctcgacccaa gcgtcagccc acgcgtccgc atttccattt ttcggtttgt 60
gaaagtaaca aagattgttg tgctatatcc ttttgaggga agctcatgga aggaaaggat 120
cgtccaagtt tatggaaaaa agctttgaac cgtgatactg tgtgggaaaa ggaccagata 180

ttagatgtgc tgttttggat cgcacacgtg gtagctctgt tgatagggtg tctattcggc 240
 cttctcaaat taactggctt accaggcttt attctttaca tatctatttg gttcactatt 300
 tctcaggctt atttcaagtg gtttttagat ttagacgaag acgactttgg tggttgggga 360
 accgtacaac aag 373

<210> 5494
 <211> 313
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G1
 <400> 5494

ggtcaggaat atccggccag agacgaaagc gataaagaca tgagagaaaa gaaatccgaa 60
 aaagaagaga aaaaggtaag aaagaggacc gaatcagggt aagaggtaga ggagcaagaa 120
 gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaagtaaa aggtaagaaa 180
 gaggaaggt ttacgacaga acgaagtaga aagaagagag tgtaaggcgg cgtcataata 240
 gaaatccgaa aggagtagaa aagaaaaacg tagatgaaca acaaaaaaga gaaggtgggc 300
 ggggaaagat aaa 313

<210> 5495
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G10
 <400> 5495

gtacggtaag gaattcccgg ctcgaccac gcgtacgatg tttttgcccc atcttgtgga 60
 agacttggcg aggattcgcg gtatgatgaa accgggtagt ttattttctt gtgttgtttg 120
 gggagaggaa aaggactgtc atatttttta cgcagctagg agcgttatca gtcctcctcc 180
 tccacctcca ggaactccag tttcttatgg taccaaggag aaagttagtg aagcccttag 240
 aaaggcagaa ttttcagatg taaaggcggg ggagtttgag gttgttcatt aaaccaaaaga 300
 tgccgaagaa tacatcacc cttatgtctgg tgtcaataaa tggatggaaa aaagtttggg 360
 agagaaggt tccgaacttt ggcaaaaa 388

<210> 5496
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G11

 <400> 5496

 aaaaccaaca aagagctttt aatttcccct tttgctttgt gaggatttgt tcacactgcc 60
 ttttgaggag tggtcactca caaggcattt tctctcaaaa aaacgcccc gaaataggta 120
 gaaaatccag caccagcaca gcaacaacca accaacattg ctacttctta gggacaatcc 180
 tgaagcaact gagcttcctt tcccagttgg cccttttcca aggaagtcaa tacgcgatag 240
 tctgcaacag taggaatcca accaccagtt tca 273

<210> 5497
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G12

<400> 5497

 ggtaccggta aggaattccc ggctcgaccc acgcgtacgc ccacacgcct ggcattggtg 60
 ctggttgctt ctatcgttgc gaccgctgcc agaacatcca tcgcgttgca cagcttgcac 120
 cacatcaaga catcggtgca ggccctgacc gccttgttgt ggggaaatac gtgtcacaaa 180
 ttcttcaata tattcttgga gttcgttagc tattgggttg gcgaaactgg tggatgtatt 240
 ccgactgtcg catactatcg cttattgacc tcattgtgtt ccgaccacct gggatttgca 300
 actcagttgc atcaagatca tgccatcaa tcagcaatgt cagctggctg tcagtgtgta 360
 ggtcgtggac tgtgtacata tatagtcaga gtgtgtgtca gataaaa 407

<210> 5498
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G3

 <400> 5498

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 ctttaaaggg aatattggca tataccgaag atatggtagt ttctactgac tttgttcaca 180
 atagtcattc ttcgatattt gatgcgaatg ctggaattat gttgtcggaa acttttgtga 240
 agctgattgc ttggtatgat aatgagtggg gctactccaa tcgtgttgta gatttggtgc 300
 accatatggc gaaagttgat ggtgtagctt aactctgctt ttcttgttgt tttttcgtgt 360
 attgtttgtt ttgtgaaaga gatgaaatgt gttg 394

<210> 5499
 <211> 381
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G4
 <400> 5499

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 ggtttgtcct ttgaaaacac gtttttagaca gattcaaatg gctgcagtaa cttttaagaa 120
 acagaatact gatgtacctg gtattctata cggagaaaat gtcccaaca actttggagt 180
 tattgttgtc caagagtggg ggggtttgaa cgaagtgatc aaaaaacgag cacaagagct 240
 gagcgatggg ttgcaatgta aagctctttt gccagatttt tatcgaggaa aagtagccac 300
 ccaaccagat gaagctcatc atatgatgac caatttggac tggccccggcg ctatcgatga 360
 tattgcagct gctgtcaat a 381

<210> 5500
 <211> 379
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-H1
 <400> 5500

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 agtghtaaggc ggcgtcataa tagaaatccg aaaggagtag aagaaaagag agagaagaaa 120
 gaaaagaaga gaaaagccgt actgaagacc gacacaggtg ctcgaggaga aaggagaccc 180

aaattaaggt gagagaatgg acgataagga actaggcaaa aggatatggt atctgcggta 240
gaacatatga aagaagcagc accgactggt tagcaaaaac acagcactct gcagaaaaga 300
gaaaatgtaa agtatagagt gtgcggcctg ccaaatagta gagaagaaat cgatgaaagt 360
gaaagcgagt aaaagatga 379

<210> 5501
<211> 401
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-H3
<400> 5501

gggccgagcc acgcgtcagg aggagcccgt atttccctta cttatggaac ttaatgtagt 60
actacatata tgtttggaag agtctgaaaa gttggatgct gtttctgatt atttcttttg 120
tcattccagc ttttgcaagg aattcaaata gcttgtaaaa gtagtagtcg aatatatgcg 180
caagtcttcg gatgaaatga ttatctatgc ctgttctagt cagttggaaa ttggtttgaa 240
ctggttccat cagtgtcttt ccagaattgt ttctctaaac aggccaaaga aaggttccaa 300
gtcttcttct tcgagtgtag tcgatcagaa caaggaacga ccagtgcctt ctatcgagca 360
cctttgggat agaaatgaat tggcacatct gatatggact c 401

<210> 5502
<211> 417
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-H6
<400> 5502

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actttattgg agaagattct tctctacaga atatgattat acaggatgaa ctggaagaga 120
atccacagga ttgtcggctt ccgaacaaga agccagagag aaagtaatac gtttgtatcg 180
atatgcgcta agtagtgtca aagatatctg caaacactat cgttttaatg aaagcaaaga 240
agatatagct gcgtgtattc gagatttatt tgaaaggcat agacatgttc aagatcgaaa 300
gcttattgat atgttggtgt tcaagggacg acaggacata gacgaagtgc gcgcccagtg 360

gtaaagtcct catcaagttc tcaactatctt aagagcattt gatgaaaaga aaattaa 417

<210> 5503

<211> 222

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H7

<400> 5503

agcccacgcg tccgaaggac tagaagaggt acggaattca cgaggaagga gcgtgaagga 60

aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga acggattttg 120

tacacactgc ccgtcaagtt ctggaagtgt gctaggaata agcaggagaa gtagaagaga 180

gtagggaaaag aagaaaggaa gtgaagacgt aagacgtgaa aa 222

<210> 5504

<211> 391

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H8

<400> 5504

ggctcgaccc aagcgtcaga aggactagaa gaggtacgga attcacgagg aaggagcgtg 60

aaggaaggag gaatcccaag taatcgagga agaaaaagct tcggtgaaag cgtgaacgga 120

ttttgtacac actgcccgtc aagttctgga agtgtgctag gaataagcag gagaagtaga 180

agagagtagg aaaagaagaa aggaagtga ggcgtaagac gtgatacaga gtaggaagaa 240

gagagaagag agctagaaag gaggtaaaag aagagtaaaa ggactagaag aggtacggaa 300

ttcacgagga aggagcgtga aggaaggagg aatcccaagt aatcgaggaa gaaaaagctt 360

cggtgaaagc gtgaacggat tttgtacaca c 391

<210> 5505

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A1

<400> 5505

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 tcccagactg tcgttggtta gagacttctc gattctccag atgtgccaaa gccaataccg 120
 tctcgttgcg acgtagtcc cagtgttcac actcttgga gagtgtttcg atgaactaca 180
 gtccctattc gataactacc gacaagtcag aaggacatat tgtccccggt actttttcaa 240
 gatttgagtt tcttgaaggt cgagtcaccg gtccaaccgt cttgaaccct agcatacttg 300
 actttacagt gtctaattgtt tcagatgctg cttttggaga atggagagca ttatcggctt 360
 caagtagagc gaaagaactg gaacacagaa gaaacgtcac caaagcgaca atagaaagtc 420
 tcaagaggac tcctaacgaa aagtc 445

<210> 5506
 <211> 214
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-A10
 <400> 5506

aaaaaggcaa atacgggaaa gcagtaaaag aagaaagaga aaggaaaaaa ctgagtatca 60
 ggaagaaaag agggagtaga tgaggaaaaga aagatcaagg aagtaagagt aagagaagga 120
 gtaatgtgaa tgaaagcagg aaagtatttg aagaagagag tgtaaagcgc gtaccttttg 180
 cataatgtcc cagcgagtga aagaggaagc aaaa 214

<210> 5507
 <211> 223
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-A11
 <400> 5507

cacgcgtcca ccaacgtaag acgtgaagag gtacggaatt cacgaggaac gaccgtgaag 60
 gaatgaggaa tccaagtga tctacgaaga aaaggcttcg gtgagagcgt gaacgtgaat 120
 ttatacacac tgcccgtcaa gttctggaag tgtgctagga ataaccagga gaagtacatt 180
 agagtaggaa aagaagaaag gaagtgaaga cgtaagacgt gac 223

<210> 5508
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-A5

 <400> 5508

 gaccacgca tccatacaag ctctgtacta gacgctttaa acattactaa cgacattaat 60
 gctattgaag gtctatcttg gatcaacttt gccttttagcc tattcgtttg tcgaattgct 120
 atagcagatg gtttgttggt tggttcaaga agtgcaggct cggggaaaca aaatactgga 180
 tataagtaata atgcgtgagc tgttggttac ttgtgaatac actactgtat catgtttgtgc 240
 ataacatact tcgttgtttg ttacacagat tgtattggtg cagtgtacta atacttagct 300
 tcacatcagt ttcgaattta ccgccaaaac cctgacgtta cc 342

<210> 5509
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-068-Q1-E1-A7

<400> 5509

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 ccaactcagc gaaacagcaa taactgtgaa aatgcagtaa actagcagta ggacggaaag 120
 accccataat tcttgactag atagggttag ggaggagaga gaatcatgaa gtagaggagg 180
 tggggtaaga gatgaaagac cactgcatga ggataaggaa tctaactgag taaggaaaat 240
 aagcttaagc tagtttggtt ggggaagtaa agcctaagaa agagtaaatt aggcaagcaa 300
 aggcatgaga gaagtataat agcagaagca tgcttgaaga aaaagtaaga gatttcagaa 360
 agggaagaaa agtcagctat agagaacagg tgaaggagaa ctcanaaaga cgagagcacc 420
 gaacgatcga agaagaaact ttggg 445

<210> 5510
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A8

<400> 5510

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aaagaaagat tcttcaaaga aagaagccac aagtaaacct gcagcagcag atgctacaaa 120
gacgacagaa aagtctggtc cggaagccaa gttgaaggga actggtgcaa agaaacaata 180
aaaagttgac tatgcatgtg cagtcctgtt atgttttgtg agttctgttt gatagtttcc 240
agctattctt ttggtagtga at 262

<210> 5511

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B10

<400> 5511

acgcgtccga caacgcgtcc gccacgcgt ccgccacgc gtccgccac gcgtccggtg 60
gacgaccgca agttcttatg atgttggaac gtttcattag ttatattcaa cgttttccag 120
gtatccattg ggctactatg gaagaagttg cgcaggtttt tagaagaaga caaccttttc 180
catgtgctta gttgcataaa gtttatttct gaatgttgaa caacttccat atggatcaaa 240
aaaaataata tctttaatca actgctcaa acttgatatt atccgtagc atgttgcaaa 300
ccacgttctt caaaaaagaa atgggaggcc ccccaaagg ttccaccctg atgtacacgg 360
aaatccaacg ctaatacccc cctaaaggtc cccctaattc tcattcaagg gccgtttttt 420
taaaatttcc ggactggaaa aac 443

<210> 5512

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B11

<400> 5512

acgcgtccaa caacgcgtcc gccacgcgt ccgccacgc gtccgccac gcgtccgcat 60
caagttgtgg tcgttgaatc gacaagaaat gataacaacat ctcaaagttg ccgatgctgg 120

tagtttgta tcttttgata tttatgggaa gcattcttca tcaggtatta ctagcgtatg 180
gattggagga agcaagaaga tacttgtttt attggagtgg gatggacaca agttgaagga 240
agagtatcga caagttgtat tgaaaaggag tggattggga gatgtcgttg ttcgacaaga 300
tgaacgtata ttggcagttg ctcattggga tgccaaagtt cgattatatg aaatacaaaa 360
caactttaga caattagcaa cgttacctca cgaccaaagt ggactgcgca tacaatttgc 420
acctcgagac t 431

<210> 5513
<211> 391
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-B5
<400> 5513

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atgatgcaat tatgattgtt aagcgtacgt tgaagcattc caaggctgtt cccggtggtg 120
gtgctgtaca aatggtgctt tctaaacgtc gtcgagacta ctccagaact attcatggca 180
agtcgcaact gttaatctcg acttttgcag cgtctctaga aattattcca cgaacgttgt 240
gtgagaatgc atggttagat gcaacagaca ttctgaacaa acttcgagcg atacacgcga 300
acaatcttcc ctatgtacgc attgatttga gcacggcta tctatgtgac acgtggaaaa 360
gtctcgtgtg ggaatcgtca ctagtgaagt c 391

<210> 5514
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-B7
<400> 5514

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gagaaaatag tcgacaaaga gtcaccattc ttaaataaag atgctcgtcc agttatactg 120
gtgaatccca atctagttga tatgggagca acaggtttag gtttcaacgc aagacagcta 180
agacaacgct tattgagcac gtttgaatcc atctacttcc ttcgagtgtg ttctgcggga 240

gttgtgggttc gtcagtatcc, ctttgagtgg agtatttggg tggaaataac caacgaagac 300
gaaaataactt cttccgactc tccctacagg tatatatatg aaacgtttcc cacgtcttac 360
tccttcacaa tgtaggttg ctagattggt ttcagaccaa gcctagtgat gacactattc 420
aacagatatt ccgaaattca 440

<210> 5515
<211> 423
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-B8
<400> 5515

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tategtctgt ttcagtggat agtttttctt ggaggttctt tttatggagg ttggctgctt 120
tattctgacc ataagaatag tgcagtttat gctgccagg aagaagcttt tattgctcaa 180
gaaaggaaca aagaaaggcc catgagtga gaatactgga gagaattgca agaaataaaa 240
cctagaaatt tggaagagtt gtacaagatg aaagaagaaa aggctcgaaa gagagcagaa 300
aaatatcaaa ggtggaagga aaacctactt ggtttatttg gcgtcacgtc aagtccccgt 360

tcgagtgagg aagatagtg ctaaacgaag gtcaactgtc caagtcgaaa cttgttttg 420
aaa 423

<210> 5516
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-C10
<400> 5516

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tttggaagag gtctcgata gaatgtgat caacttccat ttcaaacagc attgaaatat 120
accgttgga aatattatac tccgagtggc cgatgtattc agtcccaag ttattcatcc 180
gatcatgaaa gactaaagat aacagctatc catgaaagaa aggtatttca aacgaagaat 240
ggacgcgacg tattggacaa tgggtggaatc gaaccggata ttccgtggga agaaactgca 300

attcctgaat ggagacgctt attacatcaa caaggattgt tgttttattt tgcaaatgat 360
 tatgcagcta cccatccgaa aggaataggg cccgattttt atgtcgatga tgaattattt 420
 gcacagttta caaagtatgt 440

<210> 5517
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-C5
 <400> 5517

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 gtggatggag cgttggactc tttttactga taatggacac cgactaggtg ataagtttgg 120
 cgtagatgct gatggcacac cttggtcgga gtggtggata gaagaggagt tgtctactgc 180
 aaaggaacaa ggtttgagtc gcgacatgaa gaaagttggt caaaagtggg gactaaatgc 240
 ataacgtgaa cgttggcatg aaacttggaa agtatacact aatggaaagg ttgaaactac 300
 gtatcgctta gatagagcca attcaggcag ttgttgaaca tacgaacttg gcagctgtgt 360
 ggtagtaatt ttgaagatac ctatttctgt ttgttgtaga atttca 406

<210> 5518
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-C6
 <400> 5518

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 gagatggacg aagaagacga gatggacgaa gaagacgaaa tggacgaaga agacgaaatg 120
 gacgaagaag acgaaatgga cgaaaaagcc cagaagccaa gataaggtat caaagtaaag 180
 aaagaaggaa aaggagaaga agagagggtg ggcttagaag cagcaaacca gagaggaaag 240
 cgtaaagca tgaaagaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc 300
 gaatcagggt aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga 360
 aacaagagaa gggaagtaaa acacaaa 387

<210> 5519
 <211> 310
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-D3

 <400> 5519

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 aaaattgttt catggtgcaa gtaacatgtc ttcactcatt ctttcataat tgttcaagat 120
 tcgctgtatt cttttatata gtagagaaca caagtttcaa tcgacaacca tgcgaaacta 180
 tcccgatagt gttttatagt tggatgaatc tatattaagt ctttaaggact atgttctgta 240
 taagaccatt tttcgacaag tgtgaaaagt aaatggctag aattgtttct tttcaaaaaa 300
 aaaattgtac 310

<210> 5520
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-D7

<400> 5520

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 aaaagcagaa gaatgggcaa aagagaatca gaaggaagga gatttgaaag ctttatgcaa 120
 ggacaaagac ttcaagaaag ctgtttttaga tgatttgaag aaagttgcga aaagcaagtc 180
 cttgaaagga tttgaagttg tgaaaaatgt gtatcttgaa ccggaagcat tttctgttga 240
 gaatgatttg gtaactccaa cgatgaagct gaagcgtcca gcggtgaaca aaaagtatga 300
 aaaggaaata gaaaaaatgt atcaagaatt gcgcaaatct cgaacataga acgatacttc 360
 tgacatttat aaaggttcca atttttttcc tgtaaaaa 398

<210> 5521
 <211> 288
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-E10

<400> 5521

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cgacaagatg cttcgttatg atcacgcgga gaggataact gcaaaagaag cgatggatca 120

tccatttttt gatgaagta gagccaagtg cttatcgaag gaagagaact attctatgga 180

taatgacagt actacgacta ctacaagcgc aatgaatact gaaccttgct gatttgatca 240

agtttccttt tctctgaata aagagacctt ttcctatttg tgcaaaac 288

<210> 5522

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E11

<400> 5522

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agacactaag cttaaggacg gtgctagtgc tgctctttgg acttgccgcc tatttctcta 120

tacagttgtg ttagcatttt cagcaacaat aattggactt gatggaagga aggcagataa 180

catatggaac gatgccctat attatcatgg aaaagtgggtg aacttttgtg catattcggc 240

ttcgtctggt tttgaagggt gcgaccatgg cgcagtgtaaa tatgtgatgg ctttggcttc 300

tatcagcttg attttagttt tctttctttg gttggcctcc tttgtcgacg cattgtatcc 360

aatttctaca gagttccggt ttgtggaact tggatatcaac atattcctta ctatgtgggtg 420

gttggttgg 429

<210> 5523

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E7

<400> 5523

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agttcggccg attacataga gagtttgggtg atggacgcac gacaaaaagg cgcttcacag 120

gtttgtccct acaaacgaga gggcaatttg ctctggccta cagtcttcga tcatgttcga 180

gaagatatga agatagcttg ggaggaaccg tttgggtcccg tattgcctat tgttcgtgtg 240
aagagtgcgg aggaagcagt tgagtttgcc aataggagca ctatgggctt gcaaggctgt 300
gtatttacca acgatattga aaaggctatt cacatatccg atgagctgtc aaccggaacg 360
gtgcaagtga atggacaacc agcatgagga cctgaccatt ttccattcca acgttttaag 420
gattcgggat tacgtt 436

<210> 5524
<211> 408
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-E8
<400> 5524

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ccgcccacgc gtccgagaag agaagagaga atgctgggtg gagtagcgaa acaagagaag 120
ggaagtaaaa ggtaagaaag aggaaagggtt tacgagagaa ggaagtagaa agaagagagt 180
gtaaggcggc gtcataatag aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa 240
aagaagagaa aagccgtact gaagaccgac acaggtactc gaggagaaag gagaccata 300

ttaaggtgag agaatggacg ataagaaaga ggcaaatacg ggaaagcagt ataagacgaa 360
cgagaaacga aaaacactga gtaccacgaa gaacagaggg agtacatg 408

<210> 5525
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-F11
<400> 5525

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cctgggaatt ttgtattcaa attctgtgct cgctcatcct tgttttcttg aacaggtcga 180
gaacttgtaa cggttccata agaaatggaa tccaacttgc tcatgaaatt gtctttccat 240
ttctcgctcg tagaattttc agtacttgcc aaagaagcct ttgtctcgga aactgaatgc 300

tcctttcctg atacattttc aaatgaaacc tcttccttct tggaagtaat cggtgtttct 360
aatgatgtat tcaaagatgt attccatgtc gtagaagact gctttccaac aaaagacagt 420
gaagaagaat tggacggtgt 440

<210> 5526
<211> 397
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-F2
<400> 5526

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cacaaaagtg tttattagta gacatgtaac tctcaaggct caagaacaaa tgacctttta 120
ggagcaacac agaagcgaca ctcgaaagca gttaagttgt ttgtgtgcac tggcctctat 180
tcttgtgcac tttgttgaat ggccgctaaa gcactatctt ccttggcaga agccttctcc 240
tgctttttcg ttggcgatat gctcgacgca agttcatccg attctttgct agaatcgact 300
gctacatgct gcttccttaa tttcgtcctg atccatgttt tggtttgact ccagttgtat 360
tttgccaatc caattaaacc ttcacgaat atatttc 397

<210> 5527
<211> 435
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-F4
<400> 5527

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acactttgga gcagtatcgc cagtgacagt ggggaaaaca taagaagtcc aaactctttg 120
gactctacgt tgctttctat ctagactggg caatgtaaag aaaactgaga gtgtcaagtt 180
accatttttt gtgggtagag tgacaaggga gttgcgatac caagatggca tgtctacgca 240
ctcgacgcaa aaagagaaaag actagggcaa aagactgaat aagattcgat cgagagtaag 300
cttgcattggc accggcaacg tagtaaccgc tggttcgtct gttacacggc cagctgtcgt 360
gtcgttatct ctcccgcgag actagctccg gttttacaag gctaccaagc catcttgcaa 420

tcgtctagac acctg

435

<210> 5528

<211> 454

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-068-Q1-E1-F6

<400> 5528

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atgttggtat taacaatagg agattttcat agtatggata aaatcatgtg tattgtgttg 120

ttttaacgct tctagttcct agtcgagtgg ctgcagtgcc tctcaagttt cgagaacttc 180

tcgttccagg aaaaatacaa cgagtattat gtactgtaag aaacacaaga agagatgcac 240

aaagttttca tcgatttacg tgattgtaaa agggaaactt gtgtaacaaa gagacagaag 300

agttcctcaa agttatttgt cctcaagtac agattaccaa aggtgatatg gacaacgtga 360

gtatatgcca cctacggaaa atgtcaagtt ggaaacttta taaaaacgtt cagtcagaat 420

atccggaacg tttgtgtaac aatgtgggac aact 454

<210> 5529

<211> 347

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-068-Q1-E1-F7

<400> 5529

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tatgaagatg ccgttttttg tttcatttcc atgggttgta ttggagaacc caactttatt 120

tattttactc ctggagtaaa gttggaaaaa ggaggggact cgctagggtca acaatacaca 180

gatcctaaga cagttatagg cattcaaaag agtgacattg ctattgtagg aagaggaatt 240

attcacgcct ctgatcgaaa agaagccgca ttgacgtatc aaaaagcctg ttgggatgct 300

tatgtccaac gaattgggaa ataaagcgat tgttgctgtg tggttgc 347

<210> 5530
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-F8

<400> 5530

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aggctcgctt agaaagtgtt tgcgtccaaa gagacaaagt ttttgaacaa ttggccaaag 120
ttcgagagtt gagaagaaat cttggcgctc ttctttcaaa agcaccttct cacgtacagg 180
taaacattgg ctgtgacttt tatcttgacg gcgagttgga tgacgaaggt cttttactta 240
ttgacatggg aaagaacgct tttgtggaaa tgcaaccaca agaagctcta gagactacaa 300
tactgagaga aacttggctg gagaggctcg gtgaatatta tacgaaaagg atcgagagagc 360
tggaagggtt gcttcaagta tatcgtgtgg aataatagaa gtatgtaatc agtattgtcg 420
ccgcaatatg tatataacag tatttgttgt 450
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<210> 5531
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-G5

<400> 5531

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ttatctctcc agttattcta cctatacaca agacagtgga ttctactttc ccaattattc 120
aggacctgtt caaatctaac ctctgttttc ctaaagctg gaaccaatga gagtttcctt 180
ttccgataat gtgttgggtt ttgtttcttc tttttcgata aacttctgtg gtttggattt 240
gttattaaaa ggtaagtac ag 262
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<210> 5532
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-G6

<400> 5532

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atctcggacg gtaactagag gagtgaacct aagtggagca gatttttcgg gacaggacct 120
tagtgggtgc agttttcaac agagtctatt aagagaaacc gactttcatg ggtcgaaatt 180
ggtttcagcc tccttctttg gagcagagtt atcctatgct aatttggaag atgcggatct 240
ttcagaagct aatttagagt tggcaaactc tcgtaacgcc aagcttaaga atgctatttt 300
acgaggagca tacttttcag gaaatacgcg tttagagaat gctgatatcg aaggtgctga 360
tttttcccaa gttattctta gaaaggacca aaagaagtat ctctgcagta ttgcgaaagg 420
gataaatagt catactggcg tcg 443

<210> 5533
<211> 466
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-G7
<400> 5533

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gaggaggatg gcagaagaga agacttgggc aacgagatca tagaccagga gatgaaaaag 120
ctgctattcc gtggataccg gatgatgatg atgattgtag tttgcgtgaa agagaagaga 180
ctgcttggtg tgcccaatgg aggtggattg cgtccatctc caacgaaatg agaaacaacc 240
cgcgttggtt caagtgcttt gacaatcctt ttgcaggtag tagacctttt ttagcttga 300
aagagttgga agatgcgttg ggtacggaaa aattgatgct cgtgatgcag acgtttcatt 360
ggctgaccaa ccagttgccg caacgaatgt gccctatttc gcctagtagt agcangacga 420
agagaaagcc gagtctgttg tttttcaaca actagaattg gttggc 466

<210> 5534
<211> 193
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-G9
<400> 5534

accacgcgtc cgcgtattat tcacaaatag ataaggaagt agtcgagtct atggaagttt 60
 ccgagagtgt ttctggggtt cctgcagaga cggagaagcc ttatagaatt ccaaacttta 120
 caccattgac tcaagacgac tttgacgaag acttgtgggt ttccatggaa taaaagtata 180
 gttttttgta aaa 193

<210> 5535
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-H11
 <400> 5535

aaaatctcac tgttgcttgt attatttgtg gcgtatttta tggacgttgt gcgatgattt 60
 ttggtcttgt atttcatcgg atgcataaac gatggagtcg tctggtttcc atggatatgg 120
 atgaagccac gatgtaaata ggagaaagta taaaacaata atatcaggac gtgaggatat 180
 cgataatata atatttggca atacaaaaga caaaataagg taaaataaaa aaaaaaggaa 240
 gaagcactac aaggatacaa gcttacgtac acgtgtagcg ctacagtaat aacttcttcc 300
 agaatgacac gtttaacat gattcacaaa aagggggg 338

<210> 5536
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-H6
 <400> 5536

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 aagagtggaa gaacatgaaa gcacagaaga atgtaagaaa tggtagagt aaaaaccata 120
 aaggaagtaa aagcggaat ctgagaggag gaaagccaca ttggaactga gaaaagggtcc 180
 aaacaagaga agacacagta aatgaggagt ggagtaaaca gaaaaggaag taaaaggagg 240
 gaatgaaggg aagttatggc aaaaacacgt gccagcagca gcggtaaaac gtgtgtagca 300
 agcgtagagc agaagaactg ggtgtaaagg tcgagtacta gagtaagtgt aaaagggaaa 360
 ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc tctagagaaa cgcaagacag 420

aaaagaaagg aagacacagt

440

<210> 5537

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-H8

<400> 5537

attccccgggt cgaccacgc atccacggac gcgtgggcca agaagagaag atagagaatc 60

cgacgcgacc ccttctgcaa gtgtttcctt agataatgga aactcggttt cgaaagatat 120

gaaagatatg ggaaataaag aggtccatcg agatTTTTcc agtactgacc aggaacaagt 180

tacattgcaa gagcgtgttg gaacatttca tcgagtggaa cctccataga ttggcgagtc 240

tttgagggga ggaaatgcac cagctcatgt ggagaatgtc gttgaaccta gcaaccactt 300

ttcttatcca agtttctatc cagagaatat gccatttccc acaggatatc ctctcctcc 360

tatgacttca ggagtatggc catatccgta ttttccagtt ccgtatttcg gacaatcctt 420

tgcgcctaca aagaatgact atagca 446

<210> 5538

<211> 242

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B1

<400> 5538

ggtcgagcca cgcgtacgag acaggaatct tttagaggag ctgagcagtt ggtacggtga 60

aagcgatcct tctcagtggg tgcacgcaca aaatctccat ggtaccaaaa cgatacaaca 120

tttgcaacag gttctttctt ctcaaccggc agaccgagaa cttgggaagt gtgcaactgt 180

ttccgaggaa gacatgggac aactagaggg tcagcgctct tgtgaaaaga ccagtgggaa 240

tg 242

<210> 5539

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B10

<400> 5539

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tatcgtctat ggcggtatatt gaaagtata tagttggtcc tgcaattcac ttacgaaaa 120
agtataattc aaggaggcgc tacaaggagt gcatttcgtg ctttagtgct tcgggtggta 180
aaccagggtg gttcttttga cataagccga aaattactcg caacgggcta tacgactgat 240
aagggtatga agaccaataa tgggtgctgtt cgagaaagtg actttttacga gagagtcttt 300
tcaagaatag cttcaaagcg ctctgacttt tggaaagaag tttctgtaac cttagtagtc 360
tctaccattg acaccgagtc ggataagggt atttcagtgt ggaacgcgtt tgttaccaaa 420
gaccgtcagt tgttc 435

<210> 5540

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-B12

<400> 5540

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gtattcgtct tggtttcctt atactgtcct aagaaaaaat cattctatta aacaatatcg 120
tggagtcgct tcagaaacgt cgtaaaataa agacagaagg catggcaggg gtgtcacgtg 180
caaagcttcg tcttatgaca gacttgaggt tgatgaagca agagcctcca gagggttgta 240
gcgctagtcc tttgagtgac gacaacttgt tcgtttgggg tgccactatt tttggcccc 300
ctgatactgc ctgngaagga ggtatctaca ctttgcgact aacttttagt gaagagtatc 360
ctgataaacc accgaaggtc cgttttactt gtgatatgtt ccatccgaac gtctaccaag 420
acggtaccct ctgtttggac attattca 448

<210> 5541

<211> 214

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B2

<400> 5541

ggtaacgggtt aggaattccc ggctcgaccc acgcgtacgc ttttttggcg cgcaatgaag 60
agccgatttg cggttcctat gcagttaaat gcgtaattac aagttgtcac gagatatgaa 120
aaagggacaa tgctgttttt gggaatatgc tgtattttta aacattggct agagctagtt 180
tcgaatacta aaaagtagtt gtgaaactgt tgtg 214

<210> 5542

<211> 294

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B3

<400> 5542

ggccggtcag gaattaccgg ctcgagccac gcgtcaggta caatgggaga gtccatgtcg 60
gagaaggaaa tagtttcacg ttatcagaca ctgaaacaac aaattcagca aataatgtta 120
aaaatagaag agtttgaaaa cgacagaagt gaacaagaac ttgttttgaa acagttgctg 180
cctttgaacg aacatcgtaa gtgttgagga caacgtaggt actgttccta atgagcaaac 240
ggttggacaa gtacaaccag tgttggcagc cagagtaaa gacttgcagc aagc 294

<210> 5543

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B5

<400> 5543

ggtaccggtt aggaattccc ggctcgaccc acgcgtacga aagatatcaa accacaacaa 60
caacggagaa agaagaagat ccctctccct tgggaatgct ttccacaagt tttccttctt 120
gtgagaatga aatgacatct agtgattgtt tcggtggtgg tggttgtggt ggtggcatcg 180
acgataaatc tcgaatagta tacagtatgg aatggaagat agaattgatg cggcattgga 240
cattttatga gtccttgatg cacagtcggt tgtttgtag tcactttgct acttgggaagc 300
agcaaggatca acgagatggt ttagagttgt tggctatatt aggaattccc ttgaaagatg 360
ccaaacagac atggaatcat atgaatgtga gatgtaaacg tttgttgcaa tcgaaatttc 420

cagttgcatg tcgtcatttt ggattgta

448

<210> 5544

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B7

<400> 5544

gaattcccg ctcgaccac gcgtacgcc acgcgtccgt atatcattcg ttatgccttt 60

tccaaggagt tttgtggtga agagtatctt cctgacgata ttctttggag acaaaaagaa 120

cagttttcgg atggcgtggg ctatagctgg atcgatgggt taaaggcgta ttgtgaaaag 180

gccgtttccg atgcagactt gcaaaatgcc gctcagcggt ttccgcacga tactccaaca 240

accaaagagg catatgttta tcgagctata ttcgaaaaac attttgggaa ttgcaaggca 300

gtacaaggtc ttcgtgaatc agttgcaaga tgggtaccta tgtggagtga cagcacggat 360

cctagcggtc gtgcacaa 378

<210> 5545

<211> 333

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C6

<400> 5545

cggctcgacc cacgcgtacg cccacgcgtc cgcccacgcg tccgcggacg cgtgggttgg 60

tctgaatctt ggagtaagca caggatcgac attccgtacg ttgtttgctg ctctcgtatt 120

tcataatcc tttgaatgat ttgctgtctg tacgaatgtt tccgaagccc actttggcac 180

ttgaaccact atagtaatgg tactttgcta ggctttggaa actccaatcc gtatatctat 240

tggtattggt attgcacaca cttatcatga aaactcctcg gcatcggtgt taacgagagg 300

cattttggat gccatcccc gtggaatttt aac 333

<210> 5546

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C7

<400> 5546

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agagtgcaca gaagagatgg caaggagaat attgggtgct tatatgggag atgccacagt 120
ggcaactctg ttcagtatca aaatgttggt ctatcttact atcatggggt tctccataac 180
tatcttgggt ctcatgggaa agaactcgga tggatatttg atacatagtg tgccacctgc 240
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ttgcaagtat atcgttgccg tagctgctat tgggttggtt atctcgtttt tccagttttg 360
ctacgggtctg ttgggtatct ttttcaagtg gcaacaaaac gttgtggtaa attaaggatg 420
cttccaatct atttttctgg gcttggt 447

<210> 5547

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-C8

<400> 5547

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gctttaataa gtgaattgaa agctattgaa cgttgtcgga tgggatcggg tgactacgaa 120
ggactcaaga cttaggaaa gacagttatt ttctctcagt ggacgagata ttagatatt 180
ttggagttgg cattacaaga caatggcttg cattatgtcc gacttgatgg aaagttgact 240
tgtaagcaaa gatcganagt cntgtccagt ttcaggttgg accagtcaga ttccatgagt 300
agtgcacaaca ttttgcttgt ctcttgaaa gctgggtgag ttgggtttaa tcttaactct 360
gcaagtcagg tgtttatatt tggaccatgg tggaatcctg cagtggaaag aacaagctat 420
cgata 425

<210> 5548

<211> 316

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D1

<400> 5548

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acagactctg aaaaggctgg aaaagcagaa gcttgtgagg gttgtcccaa tcagtctcta 120
tgtgctagtg gaaaaagtac tcaactggac cctgatatac aactcatagc ttctcgtcct 180
gcgaataata agcacgtaat tttgatatta tctggtaaac gcggtgttgg aaaaagtaca 240
tttgcatacc aattggcttt tgcgttggca agtagagaat attttgtggg ttactggat 300
gtagatattt gtggac 316

<210> 5549

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D10

<400> 5549

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ggatattttc ttattagtgc ctgtttgggt atgtttatgt tcgttgtctt agttgctcaa 180
caaacctgtc atagatggct atccaatgtt gcgagacggt gcaacgggca actgggttggg 240
aacttttcat ggtcacaagg gagcagtgtg gtctgcttcc ttaaacaata ctgcgacatt 300
agcagttact ggaggagcag actttacttg tagaatatgg aacgctctca atgggctttg 360
tttgagaact tactctcagc cgcacatttg ccgagctgtt tctttttcgg aggatagtta 420
caaagtgcct gttggaggga ata 443

<210> 5550

<211> 321

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D12

<400> 5550

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ggaggttact cagcaagaat gccagtagct ccaagagtcg tattgtgtcg agtatgaaga 120
atgtcagcaa gttacccagg aagtttctcc ttcagaaatt gtctactacg gtgaatcttc 180
ttctagcagt agttactact actagaacac ttgtgaaatg cgcaaagtcg caaagtagag 240
tgttcttttt tgaataaact gtgacttttt gtcaaagaaa acaaataagg gggaaaaccc 300
cagtaaggac gcctataagg t 321

<210> 5551
<211> 354
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-069-Q1-E1-D3
<400> 5551

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caaaaacgta agaaagagga ccgaatcacg gtaagaggta caggagcaag aagagaagag 120
agaatgctgg gtggagtagc gaaacacgac aagggaagta aaacgtaaca cagacgaaag 180
gtttacgaga gaacgaagta caaagaagag agtgtaccgc ggcgtcataa taaaaatccc 240
aaacgagtcc aacacaagcg agacaaccaa agacaccac acaaccgccg tactgaacac 300

ccacacaggt accccaggac aaacgacacc caaattaacg tgacagaatt gacc 354

<210> 5552
<211> 367
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-069-Q1-E1-D4
<400> 5552

ggctcgaccc acgcgtacgt ccactttggt ttcgtccctc gtccctcgtc gtctcctcca 60
acgagtacca aaacataaaa tagaaaatgg caactttact atccaaaaaa agaagagcag 120
tagccgacgg tgttttcaaa gcagaactta acgagtttct gatgcgagaa ttgtccgaag 180
agggatactc tgggtgtagaa gtgaaacca cgccgttgcg aacggaaatc gtgatccgag 240
ctaccagaac aaaaaacgtg ttgggagaaa aaggtccaac gattatagaa ctactgcgt 300
tggtacagaa gcgattccgt tttcctgaac gaacagtgga actttatgcg gaaaaggttt 360

ccgatag

367

<210> 5553
<211> 334
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D6

<400> 5553

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gaagaagacc ttcgtgaaac tttttccaaa tatggagaag ttgttgatgc aaggggttggt 120
gttgaacgtg aaactggtcg ttcccggtgg tttggtttcg tatcctatgc agaaggttcc 180
tccgtaaacy aatgcattgc cgcactggat ggcaaggata tgcaaggacg cactattcgt 240
gtgaacaagg caatgtctcg tgaacaacgc gagagtggag gagactttcg tcgcggtgggt 300
cgtggacgat accgacgttt tcgttccgggt cctt 334

<210> 5554
<211> 325
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D9

<400> 5554

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agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag 120
aagccacaag taaacctgca gcagcagatg ctacaaagac gacagaaaag tctgggtccg 180
aagccaagtt gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgttcct 240
gttatgtttt gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga 300
gaaaattttt tatatttaca caaaa 325

<210> 5555
<211> 416
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E11

<400> 5555

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aaaaacacaa aaaaataaaa aacttacgta aacgtacatg aaacattcaa ttcttctgca 120

aaggtgcctc caaactttca tttccctcgc cgtcctttaa aaaaatcggg cccccccca 180

aaggtttcca accttatttc ccgcgcaatc catctcatta ccccttttaa gggcgcctt 240

aatttcattc cagggccctt ttttttaaaa tccctaactt ggaaaaccct ttgttttctc 300

cccttaacct ccttttctca atccccccct ttccccactt ggctttctct ccctcggcc 360

cccccttttc ccctcccaac ctttttcccc cccaattgc caatggcccc tccct 416

<210> 5556

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E12

<400> 5556

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ggagacaaag tggagaaggt ggtagtttcc gaaagacttg cggaatctcc atgtatcctt 120

gttactggtg agtttggttg gtcggccaac atggaacgta tcatgaaggc acaagctttg 180

cgtgattcgt ccttggcaat gtacatgtca tcgagaaaga taatggaaat taatcccaac 240

aatgccatca tgcaagaatt gcgtcgccgt gtggaagcag acaagtcaga caagaccgtg 300

aaagacttgg tcaatttatt atttgacact gcattgttga cttccggatt ctctcttgac 360

gatcccaacg tttttgcctc tcgtattcat cgcattgatta agttaggtct tagcattgac 420

gaagatgaag tcacagaaaa ga 442

<210> 5557

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E5

<400> 5557

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aacaacaaga gcagtagaga taatgcttca cacgaccgac aaaaagcgaa agatgttcgt 120
 ctttcgaaca tttccgcttc aaaagcagtt gctgacgctg taaggaccag tttgggtccg 180
 agaggactag ataaaatggt gcaggaagaa ggtggagacg ttttcacag taacgacgga 240
 gcaacaattt tgtcaaaaat gagagtggag catccagcag caaagatgct tgtggatctc 300
 tcgaaagccc aagatgttga agctggagac ggaaccacga ctgtagttgt catcgacggc 360
 tcgctattaa gtgcttgtct tactctactt gggaaagggg attcaccctt cattgatatc 420
 ggatgcgttc cagtttgcag tggagaagg 449

<210> 5558
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-069-Q1-E1-E6
 <400> 5558

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 tacgccagtt cttgattgcc acacaagcca tattgcttgc cgttttgcag agttggagaa 180
 gaagatggac cgtcgctcgg gtaagacagt ggaagagaat cccaaggcta tcaagtcagg 240
 agatgctgct atggtgaaga tgattccatc gaagccaatg tgtgtggaaa ctttcactga 300
 atatctctct ttgggacgtt ttgcagtgag agatatgaga cagacgggtg ctgttggtgt 360
 tattaaggag gtggagaaga nagaagtaga aggaaagact acaaaggcgg ctgcaaaagc 420
 gcagaagaag taatcttttg ttgctt 446

<210> 5559
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-E8
 <400> 5559

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tctcgcgaag ttgttgggaa gaaatcttga acgattatgg aggagcgatg ttcctatgga 180
 gcccgagcct tcccagatgg atattgtttc caccagaact gatacagacg agatggaagt 240
 aacagagcgt aaaggagttg tctcagtacg acaaggagag tttgattgga tggaattctt 300
 gaaaacatat tgtgatttga cagagtctga agcaaggcta tgttgtgata cattgaaatt 360
 gatgagagaa caagagttta catcagttga tactgcaata ttagaacgcc tgggtattga 420
 agattcaagg actaggctca aaattgttg 449

<210> 5560

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G11

<400> 5560

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 tgaagagtgg ttaaacgtga cggagacaaa caaagttaaa gatgaggaat gtattttaat 180

cgatgttagg aatcctgagg aagtacagtc cgaacctgta ccgaatgcac agaattattcc 240

acttcgtgat attcgaagtc agcttgataa gttaccgaaa gaaaaggaaa ttgctgtgtt 300

ttgccgctcg gggcagcgtt cttatttggc atccagaatg ttaagtcagc tgggttttca 360

tgtgaaaaat atttcgggtg gctttctttc ttatcgagat gtgaaggcaa gtgccgaaat 420

tcgttagtgg acgttgaacc ttg 443

<210> 5561

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G4

<400> 5561

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acacaagttt cggtaaccata atatttgta gaaaggttct ggaaggggag aggaagtaag 180

tagtatcgcg cgtttgcaac aacagagtag aagagttttt cttatttctg tggcgcaatt 240
 tgcgatattg ggattagtga gacccaaaga agcagtcgct gctgaagaga gctttgcaaa 300
 aatctggaca aggagggttt ttaaaagctg gttacaatac tcccgaaggt ttaaccagtg 360
 aaacagttca aatcgatgcc gaggctatga aagaccgcga agtaaaaaag ggactggaga 420
 atttgagagc tt 432

<210> 5562
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H10
 <400> 5562

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 aaaatgaaga aagcaagata cttgcagcaa ctgggttccta tggatggctc aaaacattgg 120
 aaggattgtg cgaaaggcta gaagcattct gtacagaaac cgaaaaccaa attagtgcaa 180
 cagaaaactc tctaaacaga gagccgccag agctcctttt gaaagtgtcg aagaaagact 240
 ttccgaaaca gcagttgacg aggtttcaaa ttccatgaa gcgattgaaa aacttttgtc 300
 gactggaagc tcctttgtcg ttggtacgaa agaagatcag cgtttgaaag agagttagct 360
 tctgaactgg aatattggat atcttgtttg aaggaagagt taaaaacgat ggactctcac 420
 atagagtcgc tcgagagact atct 444

<210> 5563
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H11
 <400> 5563

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 agtgtacgaa aacagcagtg catcgtttcc caagcttccc tccttctcca agcttttcgcg 180
 ttcgtctcct tcttcatttt ctctgtcttc agtatcttcc aaaagtgtat cctccaaaag 240

tccgtcttcg aaaagattgt cttctccaag ttcgtcttcc aacagaccgt cttccccaag 300
 gtcaccttct agtcgttcat ccagttcttc agactctttg cctgatattt ccgccagagt 360
 tgaaaaatat ttctcgaagc acaagaagaa tatatttgaa gtgggtagac tggctggttag 420
 gttaaccaga gagtattatc ctaatg 446

<210> 5564
 <211> 341
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H2
 <400> 5564

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 ccagaagaga aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa 120
 attaaggtga gagaatggac gataaggaac taggcaaaag gatatggtat ctgcggtaga 180
 acatatgaaa gaagcagcac cgactgttta gcaaaaacac agcactctgc ataaaagaga 240
 aaatgtaaag cgcgtacctt ttgcataatg tcccatcgag tgaaagagga agcaaaaatc 300
 atgaacatct cagtatccag gtaagaccgc aagcaaaatg g 341

<210> 5565
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H3
 <400> 5565

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 caaagcttca cactctacca acatagaact ccatgttggc gatagatgct ttgttgcgcc 120
 taataaccgt gttgcaacag ttcgttacgt cggaagcctt cctgttcattg aagctgaaac 180
 agtggtttgtt ggagtccaat ttgacgaacc tgtaggaaag aatgatggca gttatcaagg 240
 acattactat tttcactgcg aaccaggata tggaagtttt gtccctttga atagaataac 300
 caaaatggaa actattcatt cagagagtga aaataatact tttgaagaat tgtaatgatg 360
 agag 364

<210> 5566
 <211> 374
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-069-Q1-E1-H6

 <400> 5566

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cgttttcggc aacgcttggt acagaaatcg agagaatatc cttggtgccg agtaattata   120
gtgaatgaag cttatcccag caaaacctgt agaatgtgtg gacagataga ttccaaacta   180
agaagatagg aagattttca actgtccgca ttgtaagaaa cgttgtgatc gaaatatcca   240
tggagctcgc aagaacttgt tgcgcttctt gggcaaaaaa cggtaattcc ttttaagtttc   300
caaaatgtgg tcagacaaga attaccgggt tagtgcgagt aagacagtag acatttattt   360
attacaaca atac                                                         374
  
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<210> 5567
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-069-Q1-E1-H8

 <400> 5567

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aattcagtca ggcaatgtat tgcaagtaga atggagaggt gcatctccgt ggttggcaga   120
ttatcataat agcaactttc aagctgctcg ttcggcattt caaaaagtgt atcaagttga   180
tccagacttg accagagaag gtggttctat tcctatcacg aatacttttc aagaatattt   240
gggaagagaa atttgtttga tgcctttggg ttctcccgat gatggagcgc atagtcaaaa   300
tgagaagatg aacaaactca attatataca aggaatcaaa gttattatag cttatatgaa   360
tgaacttgtc aattgctaga ctcttttccc gctatattcc actctaataa tataaaagga   420
taaagttggt cttgg                                                         435
  
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<210> 5568
 <211> 455

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H9
 <400> 5568
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 aatgcgattt cctatgatcc attaggaaca tctcttctt ctctcgacc tcatgccacc 120
 accacattaa tgctatatct tcagcaagtc aatgggtctat atcaacaatc cgtatcattg 180
 tgtgagacca tcgacgacaa agaacccgag tcgcaatgcc gtacatttca aacgagtctg 240
 gtggcaaaca atttttttgg caacatcata ttgtccactt gtctcatcgg ggcaacctct 300
 ggcaattcgt ttggaagcaa cttgaatatc ccacctata acagtaccaa gggaatagat 360
 ggctatcttt ggtacatcgt ggcagccgga agctttgtga tatgggtggc attccttgcc 420
 ttgtttatat tcaaaaacag atcgctatta aacta 455

<210> 5569
 <211> 295
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-A5
 <400> 5569
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 agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat 120
 aaggaactag gcaaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga 180
 ctgttttagca aaaacacagc aatctgcaga aaagagaaaa tgtaaagtat agagtgtgcg 240
 gcctgccaaa tagtagagaa gaaatcgatg aaagtgaaag cgagtaaaag attaa 295

<210> 5570
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-A6
 <400> 5570

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agaagagatg gcaaggagaa tattgggtgc ttatatggga gatgccacag tggcaactct 120
gttcagtatc aaaatgttgt tctatcttac tatcatgggt ttctccataa ctatcttggc 180
tctcatggga aagaactcgg atggtatttg gatacatagt gtgccacctg cagatcaata 240
ttgtgcatac aagtcttcat tggaggtgaa ccaccatgga attgcttcct attgcaagta 300
tatcgttgcc gtagctgcta ttgggttggt tatctcgttt ttccagtttt gctacggtct 360
gttggtatc tttttc 376

<210> 5571
<211> 382
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-A8
<400> 5571

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taggctttta tcatactgga atattaagac agacaaaatt tatcaaccaa gaacagtcct 120
caaccacctc tagtatacct agtgccgagg atactcctct ccatatcgac gaaagctgtg 180
tccagcgctt gagatatgtt agtagccaaa ggggaggaaa acctgttgct ttaagagtag 240
cagtggatag tggaggatgt tcaggctttc aatatacttt tgagttgacc gaggaacagc 300
cagcagagaa cgaaaccgtg gtggaaagaa acggttgcaa agtatatgtg gacgatattt 360
ctctcccgtt tttaaaggga ag 382

<210> 5572
<211> 413
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-B5
<400> 5572

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gcaagaagag aagagagaat gctgggtgga gtagcgaaac aagagaaggg aagtaaaagg 120
taagaaagag gaaaggttta cgagagaagg aagtagaaag aagagagtgt aaggcggtgt 180

cataatagaa atccgaaagg agtagaagaa aagagagaga agaaagaaa gaagagaaaa 240
gccgtactga agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag 300
aatggacgat aaggaactaa gcaaaaggat atggtatctg cggtagaaca tatgaaagaa 360
gcagcaccga ctgttttagca naaacacagc actcctgcag aaagagaana tgt 413

<210> 5573
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-B6
<400> 5573

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accctatatg ttaatgtaga tctcaggac tttccccgtt ttgatgggga agattttaaa 180
cccacgcttt taaagaagat tagcaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa 240
agaaaaaagc acaaaaagaa taaaggaaaa agtgcgatg gtcacaaagt taaagctctt 300
gaacagcgtc acaggaaatc aaatcaacaa caggggtggc ccccaa 347

<210> 5574
<211> 366
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-B7
<400> 5574

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gttataaatc atccaaggct aaatacgtaa agagagaccg acagaaaagt ctgggtccgga 180
agccaagttg aagggaactg gtgcaaagaa acaataaaaa gttgactatg catgtgtaag 240
tatttgtgga ttttccagta gaacaagcta aagttgtttc tgaaggcagt cctgttatgt 300
tttgtgagtt ctgtttgata gtttccagct attcttttgg tagtgaataa agagaaaatt 360
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<210> 5575
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-B8

<400> 5575

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 caagtgttga aagaaggaag cgaatatgct tcgtcgatag cacaagaaac gataggcaag 180
 gtgaaggatt gcatgggttt tgtgggaacg gattgaaaag gtttccaaga tattttgtgt 240
 ttgtgcgtgt gtatatgcgc gcaagctttt ggtgggtgact cgtggacaca tggttgcaag 300
 ttgccagggg ttttttaggt cgatcttttc cgttggggtg ttgctctcta tcgtagaata 360
 gaaagcgcgt tttttttgga taaaggcaca acaac 395

<210> 5576
 <211> 260
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-B9

<400> 5576

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 canaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg cggcctgcca 180
 aatagtagag aagaaatcga tgaaagtgaa agcgagtaaa agatgaggta tagagaatgg 240
 cggtcctaac aataaggatc 260

<210> 5577
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C1

<400> 5577

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tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa 120
aagatgaggt atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaa 180
agacgtttga aaggcgtcca gtatgaaagg agaaacgagt gtagcactgt ctagtcgtcc 240
aactcagcga aacagcaata actgtgaaaa tgcagtaaac tagcagtatg acggaaagac 300
cccataattc ttgactagat aggtttacgg angagagaga atcatgaagt anangaagt 360
gggtaagaga tgaaagacca ctgca 385

<210> 5578

<211> 372

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C11

<400> 5578

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gtaggctaag aacaacaatc caaagaagga aacgttaaag catgaaagaa aagaaatccg 120
aaaaagaaga gaaaaaggta agaaagaaga ccgaatcaag ggtagaagta aaggaacaac 180
gaagaaaaca aagaatgctg ggtggagtaa caaacagaaa aggaagtaaa cgtaagaaag 240
aggaaacgtt tacgagagaa agaagtagaa agaagagagt gtaaggcggc gtcatantag 300
aaatccgaaa ggagtacaag atcagagaga gaagaatgaa tagaagagaa aagccgtact 360
gaagaccgac ac 372

<210> 5579

<211> 422

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-C2

<400> 5579

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 aggtcaaggg attttgagca taatttgctg aataacctgg tatatggaga gtttccgcca 180
 cttatgaggg gtttatgtca cgaacatagc agaatgaata tgaggaggat gaagtcttcc 240
 tcgtccttcg agcacatcaa ggatgtgaga gagaatagct gcgaacgctg ccaaatagatg 300
 actagttgga tggtcgctat tagacaagct gttcttacgg cttcaacgct tccgttcgat 360
 ccacgctatc attatgtatc atatagtgtg gatagacgag gtattgtatt ctgcaacgaa 420
 ac 422

<210> 5580
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-C6
 <400> 5580

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cgagtaaccg taggatggca ccttatcaag tggatcagt aggtggcacg tttgatcgtc 180
 tgcattcggg gcatcgttta ttattgagtg taacagcgtg gagttgtaac gggcacttac 240
 ggattggcgt gacaggacca aagttattgg agcacaagca gtggaaggag ttgattgagc 300
 cttttgaaca acgagttgcc aatgtgggtt catttgtaaa gagcattcgt cctcgagact 360
 tggtcgtgac tgccgtatag ttgcacgatg 390

<210> 5581
 <211> 350
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-C7
 <400> 5581

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 ggttacgaat gcatataaaa tagtattcag attgttatgg gaagttcctt caaaaatctc 120

ttagtaatag atggacgggc tctttgtaat tctcaaacta agtgagatcg tctcatcgta 180
 cacacttcag agttacgctt cattagtga gtgtgcctag tattattcat gtgagcgaat 240
 agcttccgag agatcgtaac ttgttcatga gtacttgta catctggatt aacatgtgat 300
 tagatggta tattaacata gtatcactca ctagttatgt gatatcgaca 350

<210> 5582
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-C9

<400> 5582

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 agggagatcc ttccaagttc tttggttact atcactacaa gggtactgac ttgaaaggag 180
 aaagagaaat cgaactcgcc aattgtaaag gttggaggtg cgatacactt gaaaaggagc 240
 gcaccaaatt gtttggtaaa acaccgacag ttccttaaaa aaaaaaaaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaca aaaaaaaaaa 360
 naaaaaaaaa acaaaaaaaaa aaaaaaaagg gggggcccct ctaaagg 407

<210> 5583
 <211> 402
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-D11

<400> 5583

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 aaaaaaaag cctggttgaa ttaaccaaac agaaaaagga aattaaaagg taggaaaaag 120
 gaaaggttaa caaaaaaagg aagtaaaaag aaaaaattgt aaggcggcgt cataataaaa 180
 atccaaaagg aatagaagaa aagagagaga agaaggaana gaagagaaaa accgtactga 240
 agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat 300

aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga 360
 ctgttttagca aaaacacagc actctgcaga aaagagaaaa tg 402

<210> 5584
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-D6
 <400> 5584

aattcncggg tcgacccacg catccaaagc ggcacacaaa aacgcttggt tatccacgtc 60
 acgtagattc gcaagtggag tcagcgggtga tgttattgga attgatttgg gtacaaccaa 120
 ctcttggtgt gctattatgg aaggaaaaaa tcccagagtt attgaaaacg cggagggttc 180
 ccgtacgacg ccttcgctcg tagccttcac tgcagaaggg gaaaggctgg tgggaacgcc 240
 tgcaaaaaga caagctatta ccaaccacaga aaatactttt ttgctacaa aaagactgat 300
 acgaagaaga tttgacgacc cagaagtaca aagagatgta aagacgatgc cctacaagat 360
 agttcgagcg gataatggag acgcttggtg 390

<210> 5585
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-D7
 <400> 5585

gacccacgca tccacccacg cgtccgaaaa aaaatggata aaaaaaacia aataaaataa 60
 aaaaataaaa tcagaaagtg atattaaagg aaatgaaatt gagtacaaac aactcttggt 120
 ttgctattat ggaaagaaca aaatcccaga gttattgaaa acgcggaggg ttcccgtacg 180
 acgccttcg tcgtatcctt cactgcagaa ggggaaaggc tgggtgggata ccctgcaaaa 240
 agacaagcta ttaccaaccc agaagatact ttttttgcta caaaaagact gataggaaga 300
 agatttgatg acccagatgt acaaagacat gtaaagacta tgccttac 348

<210> 5586
 <211> 440

<212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-D8

<400> 5586

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 cagcaccgac tgttttagcaa aaacacagca ctctgcagaa aagagaaaat gtaaagtata 120
 gagtgtgcgg cctgccaaat agtagagaag aaatcgatga aagtgaaagc gagtaaaaga 180
 tgaggtatag agaatggcgg tcctaacagt aaggatccaa aggtagcgaa gtaaataagac 240
 gtttgaaagg cgtccagtat gaaaggagaa acgagtgtag cactgtctag tcgtccaact 300
 cagcgaaaca gcaataactg tgaaaatgca gtaactagc agtaggacgg aaagacccca 360
 taattcttga ctagataggt ttaaggaaga gagagaatca tgaagtanag gaggtgggggt 420
 aagagatgaa agacactgca 440

<210> 5587
 <211> 308
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-D9

<400> 5587

cacgcgtcca accacgcgtc cgcaacatca tgcaactgtc ttaatatagg ctctttgatg 60
 atgctgccat cgggaaacat tcttctacga gtatctatct ttctagcaag ttctcatct 120
 tcatactgtc gtttgatgaa ataacgggga agagtttcat tcgatgccca taattgtttt 180
 aagagttggt gcgtgtcttc actcaaggaa gctacatagt cttcttctac gatgtcaccg 240
 aaatgataga tacttaaatt ggaaatgtgc ttgtgtaagc cttgaataaa actgagagct 300
 tcggtacc 308

<210> 5588
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-E5

<400> 5588

attccccgggt cgaccacga gtccatgtga tatcaatata atggacgctg gtcaatggga 60
attgttttgca aaagatgcca atgtgtctac tgcaggctat tctcaaggca taagtaattt 120
gagcaaatgt ttctcttccg ataagagtgc ccaatacttt tggattgccg cttatgcatt 180
gacaccttcc caactaaaaa tcaagttgcc ttataacaac accgatgtgg aacgtatcaa 240
tgaagtagct acccaaggat tgaatcgtag tgcttgtgta ctgaatgctt atgatattac 300
cgtcaatgcc tttaatgata cgaaacaagc aactaccgat ggaattcact atctaagatg 360
gatcaacgaa caagttgtac aattgttcc caatgcagtt gacaat 406

<210> 5589

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-E6

<400> 5589

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ataagcaaca aggcaacggc tgtgacaaga ccaatcaatc catatgctcc ataaaaggaa 120
taagaagaat attttttcac agtcacaaat gtattttcta tggaattcaa aacattatcc 180
atagtacttt tgaagtccgt tgcttccgtg tctatctctt gcattgcttg taatatgtca 240
gaatatgcag gataactggc atttagttgg gcctgaagac cttgagaaga aaaggtctgt 300
tggaaaaaat tagcagaggc agtcatccaa tgaatggaac catcgagagc attttcgtcg 360
tgaccaaaac tctttacang cacatgcttt cctagaaagc caaatgctgc accaca 416

<210> 5590

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E8

<400> 5590

accacgcat caagatgact gcctcaagtc ttctatcttt gcagcgttgt tttttcggtg 60
tgattttctt cattcctaaa acttctcgac atacgaatct ttatacaaaa aactccatcc 120

aaagtgttgt ttcactttgc agagagagaa actttactag ttctacagaa acttcgagtg 180
 tcggtagtcg tttcaagaac attctcgtag aagcccgtag tgaccgagtg ggtttaatca 240
 cgctcaacag gccaaaacaa ctcaatgcc acaacgagga gactcaacaa gaagtgttc 300
 aagcgttgga agagtttgat cgcgatcgtt ctataggagc catcgtcttg actggaagtg 360
 aacgagcgtt tgctgctgga gcagatatca aagaaatggg caatcgcaac tttgtg 416

<210> 5591
 <211> 368
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E9

<400> 5591

acgcgtccac ggaatttgaa atggaaagaa gcacttcgat caagcaaatg gagtctgtac 60
 agagacaagt aagagaacaa cattcgaaac aagagcagga tatggaaatg cagacttgca 120
 atgaaagaag agataaaaga gcgaaaagaa ggctcggaac ttacatcgt ggcagtcaag 180
 aggaattgaa atagcagtcg tggatattgt agaccaactt gtatttggtc catgttggtta 240

tcgtaggttt ttagaacat tcacctttat ttgatcgct gtgcctgttt ccccatgaaa 300
 aaccctctgt aaagaaaagg tcgataaaat tctctggtgc cacaatttcc caaaaaaaaa 360
 aaacacac 368

<210> 5592
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F11

<400> 5592

accacgcgt ccggaaga gaaatgtaa agtatagagt gtgcggcctg ccaaatagta 60
 gagaagaaat cgatgaaagt gaaagcagat aaaagatgag gtatagagaa tggcggctct 120
 aacagtaagg atccaaagg agcgaagtaa atagacgttt gaaaggcgtc cagtatgaaa 180
 ggagaaacga gtgtagcact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa 240
 aatgcagtaa actagcagta ggacggaaag accccataat tcttgactag ataggtttag 300

agaggaaaga ggtgtatgat gcaggcaaag aagtgacgca gtagattaga gagtaacaca 360
tgcaagtagg taaagcgaac ggggtga 386

<210> 5593
<211> 445
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-F6

<400> 5593

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actaaaagca ttttgttatc cacagtaaag tataatagtc ctttgcagct gagtaaagca 120
gagatatgga gagcttctta tccaattgga agcagacggt cctttgcaga acaaaaggca 180
cagcagcagt ccaaagaagg tgaagaacca ataacgcctt atcaacctgt gacggagaag 240
ctggataaaa gagacccaaa ctatccttgg aagtggagaa gttttcttcc tgaacatacc 300
tacaaacca acctcaatat caatctggaa aggcatcata cacctttaga ttttagagat 360
agggtagctc ggggaatcgt caagttttta agattttttg cggatgcctt ttttcagaaa 420

cgatacggac aacgcgctgt tgtgc 445

<210> 5594
<211> 360
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-F7

<400> 5594

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ttgggggttt tacaaggctt ttcgtataat aaaccctctt gtgttgctgt ttttggtcga 120
aaaccacagt tgtgtttctt tcctcggcaa ccatggacaa gttgtaaaag aagagggagc 180
ctanggatag tagctactgc gagtacaacc agcaatagca ataatagtat tcaagaccac 240
aacaacaaca ataataataa taatggtaac attttattcg tattgtaaac gaaggttcct 300
cacatgaacg anatataaac taagtgggtgt tatggcactg aaccaagaaa acgtcgaaca 360

<210> 5595
 <211> 378
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F8

<400> 5595

aatgcccggg cgcaccacg agtcaagcca cgcgtccgtc ggattcctct tctgttgatg 60
 catcgttgcc ttctggggaa agacgttcga agtcagttag aagaggattg tcgctttgca 120
 atgcgtcggt taacaacttg gccgcaagtt tggcgtcttg agctatttct tgttcaagaa 180
 gaggacctca ttcaactttc cactgggatg ggcgttccaa tgcttgctgt acggttaactg 240
 gaggattatt ttgccacac aaatgatata agtgaagtgc taaagatatg catctgagta 300
 aacgagtaaa gtatggctta tattcgttgg ccgcagataa cattaagtaa taatattcct 360
 cgtttctctgg tccatatt 378

<210> 5596
 <211> 377
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G5

<400> 5596

accacgcat ccagaatttg gtttgttgga caaagatgag gaagacgcgg ttcttttagta 60
 acaatttttag gaaaagtagc taccggagta tgggctcaaa aagggacaac aagggtttgt 120
 tctctatgat atatcacggg ttgatgtctg ctctttttct gcttggtggt ctaactcttg 180
 ttggtgtggg aatatatgct gaagtaactc attctggaaa gtttgacttg gattggacga 240
 gtagcttttg gagtgtctg acgaactttg gaatagctgc catcatagtt ggagccacgt 300
 tggcagttat tggagctatt ggttttgtaa catttaactc tggtttttgt gggaaattct 360
 tcaagttgat gtatttc 377

<210> 5597
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-G6

<400> 5597

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cggttatgca ataggaaagt tatgattcca ttttgccgtt caaataacaa tagcgagaag 120
gagaggaagg tcgctcctgt agatagagaa aagaagggtg ttggagttgg tatggccggc 180
ttggatttta ttgccaaggt tcacaagttt cctcagccag atcagaacat aagaagtgt 240
caacatagca ttcagggagg cggaaatgct gcaaatactt tgacttgttt gaggagatta 300
ggtgtaaacg ctgttctagt aacgaaaatt ggtagtgtgact ttgcgtctca atccattatc 360
gaagagttgg aacgtgaaga catggatata ngtttcatta caagacaaga tgggtgctc 418

<210> 5598
<211> 345
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G8

<400> 5598

cgggcccagacc cagcgcgtcca cccacgcgtc cgcggacgcg tgggcccgtt cggatatctgc 60
acattatatt catcgagccg agtcttcttc gtctcgacgt gcagtttagca tttttatgat 120
aagattggcg gaaagtgtga tgaatcgaga acgaagactg gcggggttgaa agaaaccatg 180
tggaaggtat tattcctact actagtgtgaca cagtgggttat tcgtgtcaag tgtataatgt 240
actgtatagt ggatacaacg tcaactatca cctccttggt cagctatata gtagatcaca 300
ttgatttctg aggaatgaca aattgtgaga agcaaagtca atgga 345

<210> 5599
<211> 280
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-H1

<400> 5599

acaaacgacc tcgatgttgg atgacaagca atggcatcat atcttcacct tgtggttgga 60

agaagagcaa cttttatcga tgagtaacca ccaacaatat cgtcgtttat tggtgaaaac 120
 atatctccaa aaaattcatc agttacaaca agatatacaa tatctatcca aactgtataa 180
 aaccattctt cctacttgaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
 aaaaaaaaga aaaaaaaaca aaaaaataaa aaaaataaat 280

<210> 5600
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-H11
 <400> 5600

gggccgaccc acgcgtccac ccacgcgtcc gggcctattc tatggctttt gctttgcgtg 60
 gtctagcgag tctttcaagt cgtttgagta cttggaaaca gggttacaag attgtaactg 120
 ttgcaaataa ttttgaacga gaaagaggac tgcgactggg gagttccttc caaagtgcgc 180
 ggcagtggac ttcgttgcaa ggtttgttat gtcgctatag aagtgcacgc gttgtggagg 240
 gagggaaaaa gcaaaaggga gtcgctactg aaagaagtcc tgtttctaca gccattccca 300
 tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360

aacgaacggt agtctatttg tggttgggaa ct 392

<210> 5601
 <211> 417
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-H5
 <400> 5601

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 aaccaaagtc acctgtcgt tgtggcttga aatattccac ttgtaagaaa ctttatcgta 120
 tagatatttt acgaatatcc aaacctagtt gtttgaataa actagacctt cgagcttctc 180
 agcaaaaaaa ggactcaaag aactccaagt tattggcttt cgaaacgaat ggagatgttc 240
 tcaagtttgg agtcttggtt actagtagtt gccttttttg ttattgggtc ctattacaag 300
 tatttcgagt atctgaacaa acagctggac tggtgactac tggattgtta actatctttg 360

gaatgggact ttggaccttt cgtatTTTTtC tcgCGgtgct aatanagaga tgacata 417

<210> 5602

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-H7

<400> 5602

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gagatatgtt tgaatttctc aaggcttCct tcgaatggaa aagtcAtgag aagcaaactt 120

tcttatggaa gttgcttctc aaggacattt ctaatcacag tcatatggaa caggtgttat 180

tgtgccatga attccttttg caggtgcgat cggaactggc agtttttttc attatcagcc 240

agcagagccg tttttaatgt gttttctgac tggatcatat tgcaaactcc caatatggga 300

atattattta ctctctttga attgggagaa acgtttcagg acanagtttc ngacattctt 360

tgtagttggc tcgtcaaacc tggcaagcgc caggaactca ttcaatta 408

<210> 5603

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-A11

<400> 5603

aattccCGgc tcgacCCcag cgtacGccca cgCGtcCGcg gacgCGtggg tggaaatgga 60

agatgctcag cgtcgaaagt cgttgcaagg tttgaccagg caacagattt cggatattgt 120

ggaagcttgt gcagcttAtc ccaacattga cttgagtttt cagttggtct gtgaggaaag 180

cgaatcatcg gaagtggAt atccaggttc cacgataagt ttggttgCGc agttaacacg 240

agaagaagaa gaagaggaga caggagataa acaaggacaa gatggcgacc tcgttcatca 300

tcctattgct tacagtacgc gctttccaga aaagaaagaa gaaagttggt ggttattagt 360

cggtgaattg ggagctactc caacacttgt tgctatcaaa cgtctcatag tcaagggagg 420

tggaaaaaag a 431

<210> 5604
 <211> 346
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-A2
 <400> 5604

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 agtttcgttt caagtgggtt ccaagtacaa cttgccaaac agttatcttc tgttattcat 120
 tcaggaaata aatgtccatg gagaaaatgt tattcgaaaa atgtccctcg tgttcggttc 180
 attccaacaa ctgtagttgc aagttacaac tacaacatat ttcaagacga ccaagatcgt 240
 tcgagaagaa gaatacaacc aagagaaaga gcctacaacg taaaaaagcc ggttggtttg 300
 gtagtggaac aagcagaaga cggaatggta tttgtagcgg atatag 346

<210> 5605
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-A4

<400> 5605
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 agtgactatg cgattttggg ttacagtttg gaataagttg gtgtgacttt ggtcttttct 120
 gcccttcagt cgaagtattg gagtagtttt cggcttgtag ggaagagttc agtgcacggt 180
 catgaatgta tttttgcgtt cgtttattcg tgcactggcc tcccttggtt ttacttacta 240
 cagaatttcg ccaaatatgg ggggtgaaca agctttgccc gtggcttgcc ctatagtaag 300
 cgaagttctt agttggtggc aagttttctg tacgagacct gactggagtc tgggagtggtc 360
 gactct 366

<210> 5606
 <211> 318
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-A7

<400> 5606

ttccccgggcc gacccacgcg tccaattgtc gtcgagttgg cgcttggcac tagttgtaga 60

tgtggcacag acagtgggaa gttgtatgta cagagacttg gacgccgttt tacagaggat 120

acttggcata tcggtggaga gtgattcttc aacgtttccg cctcgtggcg gaccgcgtga 180

ctcggagttt tacttgtaga gtgtttcttt ttacactttt gtattttatc agttgttact 240

tgcgtcgact aggtgcttca cgacttgtaa caagtctccg ttgtgttggt tcaacggatt 300

ttcggcctcc tttttatc 318

<210> 5607

<211> 270

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-A9

<400> 5607

cggtctgacc cacgcgtacg gcgaacgggt gagtaaagag gtgtgaaaga gtggaagaac 60

atgaaagcac agaagaatgt aagaaatggt tagagtaaaa accataaagg taggcttaga 120

agcagcaaac cagagaggaa agcgttaaag catgaaagaa aagaaatccg aaaaagaaga 180

gaaaaaggta agaaagagga ccgaatcacg gtaagaggta gaggagcaag aagagaagag 240

agaatgctgg gtggagtagc gaaacaagag 270

<210> 5608

<211> 303

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-B11

<400> 5608

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cagaactagg tgctatatcg ggaatcgtca ttttattttc gtatcttgcc ttatttgttc 120

gtttttacgt gaatacttat aagaagaaac aagtattgga aaagaaagaa tcttgaaacc 180

tctttctacg tatgagttgt tgttgttggt gttgtgatgg gaggaaatgt taccaccacc 240

ccacacacac aagttgcaat aaagcacttg aaaatttttt gggttgaaaa aaaaaaacia 300

aaa

303

<210> 5609
 <211> 67
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-B2
 <400> 5609

tacgtcgaaa ttcacgggtc gaccacgcgt ccgatctatg gaagtaacga agaacgagtt 60
 tatagaa 67

<210> 5610
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-B4
 <400> 5610

gtccagaatt cacgggtcga cgcacgcgtc cgcccacgcg tccgagagaa cagttaccga 60
 tagttccaaa acaacgaatg gggctgctgc tgctcccaaa gagaccaaac tcagttccat 120

tttttagtggc caaagtacgg attcgaaaac aaatactact agtgctagtt ccaggacagc 180
 tagcagacca gcgaaaacca atgaaaagat ggaaactccg ataggaagtg caaagtttgg 240
 tttcttatct tcccgaatga aacctagtgg aattgggtacc actcctacta ctagtaccgt 300
 gggcagtagc ttatcccaaa agaatacagc acgtccaagt acgacaccaa gcaataagaa 360
 acatttagaa 370

<210> 5611
 <211> 447
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-C11
 <400> 5611

ccggttggga attcccggct cgaccacgcg gtacgcccac gttggttaaag atagacttgt 60
 ctcaaggcag ctttaaagta ctccaagact gtgacagaga tttagaatgt gatcataata 120

ccaagtttca gttggaactt attcagtatg gtctcttttc acctggtttt tggacgagag 180
aaaatgttct gctcttctat ttggagctcg tgtcaggtgt attcataagg gacactctct 240
accttttcta caacaaaggt gaagaacatt tgtttgcgag tttaatgctg ttgttggaga 300
cacaagtttc actgtatgca gacataaaaa caaactggga gaaacgacac tttatcgttt 360
gcctcatcgt caggtctttg tgtgaggaat atcaacgaca gtattcagag ctatgttcac 420
cgaatgaaag cacgaaagat atgctac 447

<210> 5612
<211> 325
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C2

<400> 5612

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tggggtcaag cctgtgagag aggaagatgg agttgatttg ggagaagtag tggaggatgt 120
cgtgagtgc tagtgcaccc tttgcaattg ggaacaggtc cgtgtgggga gaggaggagg 180
tgatagcttt catgtcgtcg agtgaggcct acggtagcgg tagcactgtt gtacagcgag 240

tggaatagtg gcttcaggag ggactccatc ccaaatttcc tcaagtaaatt cgagcgttcg 300
acgagctcac ggggagtcac gtcag 325

<210> 5613
<211> 334
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C4

<400> 5613

gtccagaatt cacgggtcga cgcacgcgtc gggcaaccgt caagtggagc aacgactggc 60
tggttggttg tgaaggagca caagtgttgc attgttggtc aatactgttt gtaatagtag 120
cagtgagagt agcatgacga gtagtaacag tggtagtgct catcaacaag ccaaggattg 180
ggtaggagtc agtagcaaaa atgagtggtc agagcctgca gctgctgtgg caggaaacttt 240
ggcctccttg ggactgataa gaatgtagtc taatggacct gtatataaaa attccgtcga 300

cttgaagggc gaagtaggtg tagtgacagg tgcc

334

<210> 5614

<211> 385

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C6

<400> 5614

taaattatgg cggaccatga tcaagtggta gcgtacaagc gttcagaaga agaaaaatgg 60

agccaagcag gtgaaaaaag atggcagtta ttcagaagac tggaaaaaga gaatgctact 120

gcccgccttt tcttagaaaa cagagctatt tttccaggtg ctagagtttt ggaactggct 180

tgtggttccg gagaaaccac tttgcaagta gctgcgaaag taagaggcta ttctgtacct 240

tcaggagaga ccacggggga actggtggat aaattgttgg agatattacg tccatcttat 300

cagcaggaag ggaaactgga tgggtgccagc aatactgggt cggtagtagg tgtagatatt 360

gccaaaggaa tgctgaatgt gtgca 385

<210> 5615

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D11

<400> 5615

ggttaggaat tcccggctcg acccacgcgt acgcaaaaac ctgatagttg gtttagagct 60

tatcctttac aggaagacct atttgagtgg cactttacta taaagggacc agaaggtact 120

ccgttcgagg gtggttttta tcacggaaaa atactgttgc cacctgaata tcccttcaag 180

ccacctgata tcgtcttgct aacaccgaat gggcgttttg aaacaggaca acgtatctgc 240

ctgagtgtta gtccttcca cgaagagaca tggcaacctt cttggagtat ttactccatt 300

ctgttaggcc ttcgttcctt ttttccttgc aaggcagaag gagttggagc tctccagtgt 360

gacctcaag ttcagagacg cttggctcgt gcattcttga agtttctactg cagacaatgt 420

aatttctcct tatcgacgtt taaa 444

<210> 5616

<211> 443
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D12

<400> 5616

aattcccggc tcgacccacg cgtacgccc aagtcgtcaa aagaagagaa 60
acctagagag tcgaaacttc atacgggtcc taggtcggaa gatggttcgt ttattatgcc 120
tttacgattg ggtgttttaa ccatcgagtc attgggttat attgacctt atcgaaaagg 180
ttttcacaat gaaagagtaa tttatccgat tggttttcgg tcaaggcgtc attttacttc 240
aatgatgaac gttgatagac agtgtgacta tatatgtgaa atagtggatt gtggatatga 300
ttatcccata tttagagtaa cttgtgaaga tttaccggat caagtttttg aggaaacttc 360
tgcttctggt tggtggagcc gaattctcaa gattattaca gaaagaactc ctgaagaacg 420
acgacgctca catgtttcgg tgt 443

<210> 5617
<211> 311
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D2

<400> 5617

gtccagaatt cacgggtcga cgcacgcgtc cggcaatgag gaaacgttgg gatcgggtggt 60
gatcacaggg gatagaatat cgttggggaca gcagacacac acaaatacaa tccagcttta 120
cttttcatcc tgcgcaacag catccttttg tggatcaaca gacttgggag attgtgcaca 180
gctagggcaa cctagtcatg gcattcacat acgcgtgcac cgaagctaca actatatccg 240
tatttgccgc actaccagtg gaggaaggac tgtctgtttc tcctcgaata cagacagtta 300
cttctcccaa t 311

<210> 5618
<211> 323
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D3

<400> 5618

attcatgggt cgacgacgcg tccggatttg ccatgcctgc tgcgtcgagg ttggcagcga 60

cagatgctag tgtgggtgaa agatccaagt ctatgatgag aatagatgga aagttggttt 120

caggtaggaa ggaaacccgc aagatagtgg acgactgttt agacgtgcgc aggagtgggg 180

caggggtcga tgagtaagtt ggccgtggca gtgatcatac aaggttcagt tactgaactt 240

ttcgttgcgg ctcgaggccg tggaagttcg ttcacgaagc atttttgaaa gtcacgccag 300

cggttgggag caagaacttc aaa 323

<210> 5619

<211> 356

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D4

<400> 5619

gggtcgacgc acgcgtccgc ggacgcgtgg gttgttgccg ggtctggtgg tgatgccctg 60

gattgagcta cgtagtggca actccgctgt cgtgaaagac ataactgcaa gtattgagaa 120

gcctgacata aaatggataa ctaggacgaa tctcagtact tgtcggaatt ctgcagaagg 180

aaatgttacg gttgacttgt cgcggcagtg tagcttgaag gatataatctt cattgaagct 240

tctcgacaag aacgtgaagt tggcgtgttt taatgatgcc ttgtgttttag ttttaccagg 300

cttgagcctt tgttattact ggtgggcgga gagtctgtag aggctcgggc ttgaat 356

<210> 5620

<211> 387

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D9

<400> 5620

tgccaaatag tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag 60

aatggcgggtc ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg 120

tccagtatga aaggagaaac gagtgtagca ctgtctagtc gtccaactca gcgaaacagc 180

aataactgtg aaaatgcagt aaactagcag taggacggaa agaccccata attcttgact 240

agataggttt agggaggaga gagaatcatg aagtagagga ggtggggtaa gagatgaaag 300
 accactgcat gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagtttgg 360
 ctggggaagt aaagcctaag aaagagt 387

<210> 5621
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-E10
 <400> 5621

tcccggtcg acccacgct acgtgcattt ttttcttgggt gtgtcatggg aagaagaggt 60
 ggcagtgggtg ctgctagaag aactccgcta aggtcaaaac ctcccctttt tgcaaaaaga 120
 gaaaggaag aagcaacaac gaaacagtct tcacgtcctg cgtcttcgct ggccaacgtg 180
 aagaataatc ctacgagtgg aaaccaaaga gagaagacca accaaacgac gacccctcca 240
 actcagaagc ctagtatgac ctcttctctt tttgggggaa tgctaggaag tatgctcccc 300
 atgtttttat ttatgaactg gttcaagagg aatcccgagg aaagggaacc agacaaagat 360
 gagatagctc agaagaagtg tcagacgctt gcgtgcaata ttcaagattg tttggaaaaa 420
 aacgactatc agcaaagtat g 441

<210> 5622
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-E12
 <400> 5622

ccggttggga attcccggtc cgaccacgc gtacgcggac gcgtgggtgt tggggtagtg 60
 gaatgaaaaa cggttgtcct tgatgaaaaa gtgtcaactt ccggttctcc ctgaagacat 120
 tgaatctcaa attctggaat tattagagta tgtaaaggat gttgctgttg ctagaatgg 180
 ttgtaagcga tggaagagac tcgtggatga aaattcccaa ttgtggagac gacttcaagg 240
 ctttacacta ccaaaacgac taccaagtga agcggaaaag tggtatagaa aggcagcgga 300
 atgtgggaat cgagaggcaa tgggtgcttct tgccttgctc tattattatg gatatcagag 360

tcaggatgcc acagttttgt ctttgacgtt tcttcgaaat agtgtecgctt gttagtgcaa 420
cgagcactag tgtcgttggt gaggtattta taaa 454

<210> 5623
<211> 355
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-E3

<400> 5623

gtccagaatt cacgggtcga cgcacgcgtc ggcaggcgta gacaagcaag ctcaggagga 60
gagaagtaga ggaaatgagt agtttcgcaa tagacagtac aaggaggcat gcgagtgtta 120
tactgttgct cgtagtaaag aaatgagtac agaagaccgg gcagcgtgtt ttgcaagag 180
agctgcagca aagctaaagt tggaagacta tcgaggggct ttggaggatt gttccgaagc 240
tttgagcttg gatgaaggct attggaaagg aaagtaccga cgaaaggaat gctatttcga 300
gctgggtcgt gatgaggag ctttgaaaga tgcaaagggc acgaaggaga agcac 355

<210> 5624
<211> 331
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-E4

<400> 5624

aggtaaaatt cacgggtcga cgcacgcgtc caccacgcg tccgcggaag tgtggcaggc 60
gggagagggg attatagtta gcaatgaaag gtggacagag attagtccag cgggtaggaa 120
gattgaactc gtgcgcgtat ctttaccggc gaatattcgt tctatctagg aagttcaggg 180
gagtggccag ccaagtccgg cagccaggaa acgggagaag gcttcctttg tagtggatcc 240
cagtttggtc gttgcgtgag atgggagtga tttgtcgttt gttgttggtt attggcagac 300
actgaagtgg gtgtaggctc aactcctgat a 331

<210> 5625
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F11

<400> 5625

ccggctcgac ccacgcgtaa gggcatgcag ctttggtact ccgcttctct acaacaacaa 60
caacaactcc tatgttcaact ccagggtgaa taagaacgtc gccactccaa agtttaactg 120
cacacataat aaagtctgtg ttgtcagttg ctccaaagat cccaccagtc ggaatacaac 180
tcgaaggga gcaattggaa cactgttttc tactgctgca ttgagtatta ctattccctt 240
gttacttgcc gagaaaccaa ctgtggacaa gccagaacaa ctcagaaagg atgttgagtc 300
tctcaaatc gacgaagagc tcattcttgaa tccagaccct gccgaaaaag atcctcttag 360
gtatcagcct ccgccaaagg aacctgaata tcgcaacaa gaaaaagagc ttatcaagtc 420
cgacgaagaa aaata 435

<210> 5626

<211> 250

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F2

<400> 5626

gtccagaatt cacgggtcga cgcacgcgtc cagggatttg ttgcgaagag gttcgggtgca 60
gatgttgctg cgtgggtccgg ggaggataact gcgacgcata ttatcagcgg gcgactaatt 120
atgaagacac ggataacaat ccgcattcga gtcgttcgtg aattcagttt gttggtaggc 180
cttcagaatt ttctgatgt tagtagcttt tcggatcgaa gaaagcataa taaaatgatt 240
tcctacagga 250

<210> 5627

<211> 327

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-H3

<400> 5627

attcaagggc cgacggacgc gtccgaccac gcgtccggag aggggtgcgtg cttccgtctc 60
cacttcccg cgttaggtc cgatggtagg agcgggtata agtggagcaa cgctgtataa 120

ccatgtggat ggagttactt cttttttcaa ggaactatct agggccgcca tgtatagcct 180
gacgaagcca aacaaagcaa acgtggcttc gtctgggtcaa ggcgactctc aagaactaca 240
gtcgttggcg gagcaaatta ggcgcctttc aagagaagta tcgaggtccc gtgcagcagt 300
tcaagaaaag tcttcgagac aacctct 327

<210> 5628
<211> 425
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-A10
<400> 5628

ggtaccggtt acgaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gcaagtagag 60
gatttattgg aacaaaatgg aatccagaat aagcgtgtaa gagaattcat ttagaaaaat 120
ttaaccacgg atgatgttca tcctaagcac tttaaattggc gcgtgaacgt ttctgcttta 180
ttgaattcta tgaatagaat actcgaattt cctgtgaaag aagggaacac atactctcgc 240
ccgacgctat ttatccgagg agaaagatca atttatgtta tgaatccgtc cgctgaaaag 300
gctattcgga cttttttccc aaaagcagtc attgaaacaa ttgaaggagc aggacactgg 360

ttaaccgttg aggcaccaga aaaattttgt gcagttgtga acagtttcct tcataactca 420
actga 425

<210> 5629
<211> 304
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-A2
<400> 5629

agcccacgcg tccgcccacg cgctccgcca cgcgtccgga atatacgaca gttttgctgt 60
taagaagcag ctgctgaacc tttcatccat gatagcatca cagcttttgt tagtagacga 120
aatacttcga gctgggagag atgttcgttc aaaatcaggc agtagtcaat aaagctatcc 180
attcttcgta aaaaaaaaga agtaaaaaaa aaaaaagaaa caaataaaaa tcagatgaaa 240
aaaaaaaag aaataaaagg gaggacgatc aagaggatgg aagcttactt gcgcgtgcat 300

ggaa

304

<210> 5630
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A7

<400> 5630

ggtaccaggt tgggaattcc cggcctcgac ccacgcgtac gcccacgcgt ccgcccacgc 60
gtccgcccac gcgtccggca tttctgaaga agagttggat ttgtgggcac aattaccaa 120
ttcaattctt gtatctggag acttggaatg gaacttggat ggctacttg aaatgatgtg 180
ggagaaactc aacttgattc gagtgtatac taaacaaaaa ggtgaacctg ccgactttga 240
agctcctgtc attttacgca atgataggaa acattgcaca gttgaagcat tttgtaataa 300
gttgacaaaa agtattatga aggagtttaa gtatgccctc gtttggggaa gtagtgtcaa 360
gttcaatcca cagaaagtag gaaaggatca tatacttcat gatgaagatg tcgttcagat 420
tgtgaaaaaa ata 433

<210> 5631
<211> 424
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A9

<400> 5631

acgcgtccag gtatcggtta ggaattcccg gctcgaccca cgcgtacgcc cacgcgtccg 60
tccaagggtt cgagagcttt acaaacgttt tctattgatt ggaaagcact atcctgagcc 120
ttttccaagt gttaggcaga aaataaagag agggtttcaa aaaaatgcta tcctttctga 180
gaaacagtcg atagaagaaa cacttcaacg tggggagttt gttctgaagg aagtcgaagc 240
cctcgtgcga ttgcataaat acagaacttt aaataagcgt tatggaagga ataaatatga 300
caattgagac ccaattcttc tagttctact gttaccttgg agaacaaagt ttgggaacat 360
aaagctcggc gcagaatttt gtaagtatta ttcctcaaaa catgattagc gaagaaagtg 420
acta 424

<210> 5632
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B10

 <400> 5632

gtaccggtac ggaattcccg gctcgaccca cgcgtaaggg tgctgttagt cttcattggt 60
 gagcggatat gtctctgaca gacatcctgt attgggtgga cacagtagtt tggaacaaac 120
 gcgttgaccg tccactatct gggacttgct tcattatata tttcagagta tttcatatag 180
 cttgtgcctt ctttgggtatt gctgactaca tggagcgta cgcgaagtac aggctgcatg 240
 aaagtgtcga caagacctac ctgcagttgc tgccaagagt tgtgttcaaa caac 294

<210> 5633
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B11

 <400> 5633

aggtaccggt agggaattcc cggctcgacc cagcggtacg cccacgcgtc cgtattgaaa 60
 atgtcaagtc gaagatacaa gacaaggaag gtattccccc agaccagcaa cgtttgattt 120
 ttgcaggtaa acagttggaa gatggtcgta ctctctcaga ctacaacatt caaaaggagt 180
 ctactcttca cttggcttta cgtctgaggg gtggaatgca gatattcgta aagactctta 240
 ctgggaagac catcactctt gaagtggagc cctcagatac tattgaaaat gtcaagtcga 300
 agatacaaga caaggaaggt attccccag accagcaacg tttgattttt gcaggtaaac 360
 agttggaaga tggtcgcact ctctcagact acaacattca aaaggagtct actcttcact 420
 tgggtgttgcg ttt 433

<210> 5634
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B12

<400> 5634

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tgcttggaaca atggttgcaa agactgctct gagttgcctc tttctctctt tccttatcgc 120
tgccgcagtt gcagccgacg tagtttcaga ggagagatgg ggatatgctc agcaaaccga 180
acaacagcaa cagtgcacaac aagtatgtaa acagtatgca tactatcaga gtccagtctg 240
cacttccgta accacacaga gcccatactg gacccaatgc tcgaagactg tgcaaacctt 300
tgtccaagc cagtgcagta cttataccca atctctaca tggacctatt gcagcaccta 360
caccaccact agcgtaccat ctcaatgcag caaggccgtg actacctata ctcaaacctg 420
ctgtgcttat gcccaacaaa ct 442

<210> 5635

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-B9

<400> 5635

ggtagcggtt aggaattccc ggctcgaccc acgcgtacgc aacaacaaag cgcggtatcga 60
ctgcaagatt cgtctccaga taagcttgta aaagaacagg aagatagttt aagacgaaag 120
tacggtaact tgccggacaa aaggcacctt ctccagcaac gactcaaggc aaaccacatg 180
cacgaacgaa aattttttga ctctgcagac gcaactttgg ccaaacaagg aaaggaattg 240
gccgaagaag ttggcgtgga acatgcctac ccaacctcgg aggatgagtg ctgagacgct 300
agttcacggt caagtggcag ctctctaga aacctcaga atttgactaa gcatcaacaa 360
cacttggaag ttggtcctac taaagcaa atccgataccg aagcctct 408

<210> 5636

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-C10

<400> 5636

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gcttcagaga agcgaccatc gcgagtgaa gactgctcaa cacatccttt ctttgtttaa 120
 gaactctcaa aaacctttta ggagcaggaa tatatctaca gttgcctgcc agccactttt 180
 tggttccctt tcttctgtcc tagtttctc tcggcgagct gtctcggccg gatcgaactt 240
 gttctcggtg agatggtttg ccgatctgcc ttcgtatagc atcctaaaga tgccttcctt 300
 gtctccaact atgacacaag gcaatatcat tgactggaaa aagaaagaac gtgataagct 360
 gtcacctgct gatgtgattg cacatattga gacagacata gctacaatgg gatgttgagt 420
 gcccaaga 427

<210> 5637
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-C11
 <400> 5637

taccggttag gaattcccgg ctcgaccac gcgtacgggg cgatattggt tggtagctg 60
 ttcgttttgc tctgagtttt gtgggatatg ataccaaagt atcttccgta tatgcgactg 120
 cctctaagac acacacaggt gcccttgaag attggtgtgg cgttattcat tttgcaactg 180

gacagacggt acacttcgat tgtggtttta cttgtggatt tcgtcagtgg ggagagtgtg 240
 ttggtgaaag aggaacagtt actgtggacg actttatagt tccatttact tgtggtggtt 300
 ctttcgttcc aagagataag agcaaataca acccgaaact caagtttcga atcaacaaat 360
 tggctgttga gaaagataac aaattggaga tgattgatcc tgtcatac 408

<210> 5638
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-C12
 <400> 5638

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 cgatggaaat gatctctggg cggtatattt ctcggtaaag gaagcaaagc aacgtatttt 120
 ggaaaccggt cggccacttt tattggagtt gcttacttat cgaggaggac atcacagcac 180

cagcgatgac ttttctcgat atcgccaaaa aacagagatt gaaatgtatt ccgagcgttt 240
 gagtcctttg cgtcgaatga aacgggtttt agagtttcga aatcgttgga atgaagaaat 300
 ggatcagagt tatgtggaag agcaaagaag agaattgttg agtgctttgg aagaagcaga 360
 aaaggctccc aaggcacctt tggaagatct cttcaacgat gtgtacgatg agttgactcc 420
 tcatttaāaa caacanaaga cg 442

<210> 5639
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-C6

<400> 5639

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 ggaaaaggag ggaagaatcg tcgtcgagga aagaacgaca atgaagaaga aaagcgggaa 120
 ctttgataaa agaagagggc caagaatatg cgcaagtacg tcgcatgttg ggaaacggac 180
 ggtgtgaagc cttatgtttc gacgggtactc gaaggctatg ccatattcga gggaagatga 240

gaaagaaggt ttggattaat gccggagata ttgttttaat tggcttgaga gactatcaag 300
 acgaaaaagc cgatattata ctaaagtata atccagatga agctagagca ttgaagtctc 360
 aaggagaaat tccagacacc acgaaaatca acgaagaaga ggggtgaagaa gganggggaag 420
 ttacgtttga tttcgatgat gt 442

<210> 5640
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-C9

<400> 5640

aggtaccggt acggaattcc cggtcgacc cagcggtacg cccacgcgtc cgcccacgcg 60
 tccgacaagc tatcgataga gtccatcgaa ttggacaaac aaaaacggtt attgtaaaga 120
 gaatgatagt tgcaaacagc atcgaagaga atctcttaaa agttcaagaa aagaagaaat 180

tggttgccga ttccacgttg ggctcaacag aagtgtcgaa acaaagcaga caaattactg 240
 tcgaagattt gacgatgctt tttcaggact gaatgcacag cttgtaaaag gcctaattgc 300
 tgtcggatag tatggagttc gatcgcaacg acaccgtgaa tattgttttg gttgcgtgca 360
 attctgtaac attcttctta acttgctctt aaagcgaata gtttgcggtg cgt 413

<210> 5641
 <211> 118
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-D1

<400> 5641

ccgggtcgac ncacgcgtca gaattgaagg ggtccacgtc ggcgcaagtc atttccattc 60
 tcgcccgtt ttttcccacg acagctattg tctaccaagt tggcttggtg tcccgttg 118

<210> 5642
 <211> 377
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D10

<400> 5642

taccggttag gaattccggg ctcgaccac gcgtacgaaa ggaaaggaga gaaagaggaa 60
 agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 120
 aaatgaggcg agaaagcata ggaggtgaaa cggattagga acccgtgtag tctatgcagt 180
 aaaagaaaga atgagtaaga aaaaaggagg tcattccacc aggggagtaa aggcgcaaga 240
 aagaaacca aagcaattga cgggaatcgg aaaaaggggt ggatcacgta aattaatccg 300
 atataaaccg agaaccttac ctctccaaga atgtgttgca cggctgtcga tagaacgtgc 360
 tgtaattctg agagaac 377

<210> 5643
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D11

<400> 5643

ggtaccggtt aggaattccg ggctcgaccc acgcgtacgc agcgaaacag caataactgt 60
gaaaatgcag taaactagca gtaggacgga aagaccccat aattcttgac tagatagggt 120
tagggaggag agagaatcat gaagtagagg aggtggggta agagatgaaa gaccactgca 180
tgaggataag gaatctaact gagtaaggaa aataagctta agctagtgtt gctggggaag 240
taaagcctaa gaaagagtaa attaggcaag caaaaacacg tgccagcagc agcggtaaaa 300
cgtgtgtagc aagcgtagag cagaagaact ggggtgtaaag gtcgagtagt agagtaagt 360
taaaagggaa aggaaaggag agaaagagga aacggatgaa atgcagagat ctct 414

<210> 5644

<211> 407

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D5

<400> 5644

ggtaccaggt agggaattcc cggtcgacc cagcgtacg cccacgcgc cgcgagcga 60
tgggcgaact ttggtgacga cgtgtttcat ttataagggt cataataaaa tatcattctt 120
taatggcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaataaaa aaaaaaacga ggcgacgccc aaaagggttca aacctaatta aagctgttaa 300
gtaactgaaa atccctacaa atctgtaacc aaaattgaat ttaggtgaaa ctttttaaaa 360
aattctaaat gggaaaaaac ctggatttac aaaatttaac ccccttg 407

<210> 5645

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D8

<400> 5645

ggtacctagt aagggaattcc cggtcgacc cagcgtacg caaacgtcta tgggcaacgg 60
cagcagatgg agtcacaaat atacctgttt cggtgggtta taaaaggat ttatttcgctc 120

aagatggaac atcgctcta ttattggaag gatatggtgc ttatgaaata agcaatgacc 180
ctagattcga tcttggttta tgtagtctgt tggatcgagg tgttgatatt gcagtggcac 240
atgtacgagg tggaggagaa ttgggcagag attggtatga acaaggaaaa tatttgaata 300
agaagaatac atttaccgac tttttggatg tttgtgatta tttgttgcaa gagaaatact 360
cgagttttgg tcgagttgct attatgggaa cgagtgctgg tggattgttg a 411

<210> 5646
<211> 327
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-D9
<400> 5646

gtaccggtac ggaattcccg gctcgacca cgcgtacggg ttggtgacaa cgacaggttt 60
cgacgtcgac gatggtatgt gtgtttgtgt gtgtcctaaa caaatcaaag atatcaagga 120
atttctgctt ttggtccgca gggaggatgc gagagccatc acaataaaga aagggaagac 180
caacacgaaa ttcaaagtcc gttgcagcag atatttgtat actttggtag tgaaagaaaa 240
ggacaaggcg aacaacttgg aacacagtca tccaccaggt ttgactttga aaaagattga 300
ttagaaataa actctatcgt tgctgtt 327

<210> 5647
<211> 345
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-E1
<400> 5647

ccggtcagga attcncgggt cgccccacgc gtccgcagaa tttttttcta acacatcagc 60
ccaaattggc aattggcgcc atttcgatag aagatcgtct ccattgtaag agtttctaac 120
caacaatcat aatacaagag atacacgtgg tcaccatctt tagcagattt cagcatatgg 180
aaacatgggt ttggtatgact actgcatact ttctttggag acaatgattc gatatccgct 240
tgtgccattt ggtcgtccgt ctatgaacga cgcctgggaa gagcgatatg tctcgaatgt 300

tgaaaaaaag atgaatgccg ttggtcaagg aattgccatg aaaaa

345

<210> 5648

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E10

<400> 5648

aattccgggc tcgaccacg cgtacggact gcgcttcttt tcaatccttt caaatattga 60
gcttgaccca tcgaaatcct cggtatatatt ttgaataaaa aacgagaact aatatggaaa 120
aatatcgaag gggtgagcga gccaaaagtc cgggccagac tccgccgaat caagtacgaa 180
taactgcggc gggcaaagtgc ccagcctatg tggactatgc agtcaagttg cttcaagagg 240
ataatggcac cgtggaaatc gtcgggctgg gtaatgccat caataaggct atcactgtag 300
cagaaatatt gaagcgaaaa gtccccaagt tggagcaagt aacaaatctt agttcgggtga 360
ctattgaata ccgctggg 378

<210> 5649

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E11

<400> 5649

taccggtagg gaattcccgg ctcgaccac gcgtacggga aagagttcag aagagaaacg 60
gacactgtta gagagatgtg cacaacgtg tttaaactcc aagttgattg caggacagaa 120
ggaaatgttt gccaaaatgg ttgtagatgc tgtctcttcg ttggatcctg gaatggatat 180
atctttgatt ggtataaaaa aggtgcaggg tggatcactt tcagactctc aactagtaca 240
gggagtagct ttcaagaaga cattttctta tgcaggattc gaacagcagc ccaagaaatt 300
tatcaatccg aagatagttg ttttgaacgt ggagttggaa ctcaagtcag agaaggagaa 360
tgcagaagtc cgagtggaga cgacgcagga ctaccaagga attgtcgatg ccgagtggga 420
acata 425

<210> 5650

<211> 360
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-E12
 <400> 5650
 aggtaccggt caggaattcc cggctcgacc cacgcgtacg gggaacctta ataaagttct 60
 taagagacag ctgtcgtttt agtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaacagggc 120
 agacacacaa aaaagcagga cggttgcgta tgctggatat ccgacttcct tattccttct 180
 tgcgtgttcc tgactcttca ttcacgggcc ctctttttac ttcacgctc ctcgttttac 240
 actgtcgtga cgggtcttaa cctgctttta cccaagtta ccttcgtgaa gtagatcccc 300
 ctttcgccat gctggcatcg tatccccgtc gcactaattg atcagccttc ctagcacttg 360

<210> 5651
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-E6
 <400> 5651

aattcccggc tcgaccacg cgtacgaccg aatcagggtg agaggtagag gagcaagaag 60
 agaagagaga atgctgggtg gagtagcgaa acaagagaag ggaagtaaaa ggtaagaaaag 120
 aggaaagggt tacgagagaa ggaagtagaa agaagagagt gtaaggcggc gtcataatag 180
 aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa aagaagagaa aagccgtact 240
 gaagaccgac acaggctactc gaggagaaaag gagacccaaa ttaaggtagag agaattggacg 300
 ataaggaact aggcaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc 360
 gactgttttag caaaaacaca gcactctgca aaaaagagac aatgtaaagt aaagagtgtg 420
 c 421

<210> 5652
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-E7

<400> 5652

aattccccgc tcgacccacg cgtacggaag aaccttggac ctatttggtg gagcaaattg 60
cggaggcaga aaggatagag ttgcactgtg gttgggtccaa ggaggatcga gaaaaccttc 120
ttgttgcggt gaaagagaca aaacaattag atgcaacagt cctttcgcaa catgtgaaaa 180
gcaaaagccc tgaggaaata accgaatata taaaagtatt aaaggacaga cttgggaaga 240
aagatgacga aggaatgcag ccagatgtat ctttttatgc tgctttgcta tctttggagt 300
tgtatcatag tggagccatt tcccctggtg gtttgttttc taaaaaactg gaacatatgg 360
acaagaacac ggttttccac gattccgtgt ctca 394

<210> 5653

<211> 353

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-F10

<400> 5653

taccggtacg gaattccccg ctcgacccac gcgtacgcc acgcgtccgg gagacgttgg 60
ctgggtatgtg gttcgattta ttctatcatt tggtggatac gatcgtaaag ttatttcggt 120
gtatgcagtt ggcaatgaaa cggaaggagg atcgatggac gattgcgag gagttgtgga 180
gtttgaagag aacattactg cacactttga ctgtggattc acaagtgggt atagacaatg 240
gggtgaatgt ttaggtacac ttggaatgtt gagagtggaa cgttttcaag gagctcccg 300
tcctaagaat acagaagaga aggatcccaa attgcacgtc gaatttcac aac 353

<210> 5654

<211> 344

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-F11

<400> 5654

cattcneggc tcgacccacg cgtaagccca cgctccggc atacgttgcc tcgtacatag 60
ttctccctat tctaccattt catatgcata ccacgtcaa cttatttcg tgtacgcagt 120
tgacaacgaa ggggaacgag gatccatgga ccattgcgca cgagttctcc actttcacca 180

caacatcact ccacactttc actgtccatt cacacctcgt tatacgacaa tggcgtcaat 240
gtctacgtac acttcccatg ttgccactcg cccctcttca cgcacctccc gttcctaaca 300
ctacagcaga caccgatccc aattttctct tccactgtcc tcaa 344

<210> 5655
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-F12
<400> 5655

ggtaccggtt aggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc gcgcaaagat 60
agatggacag atctccttgg aggctggggt cgtttcttat taaaggtgct gcaggaacag 120
tacgttcttc cctccattct gatgttggga acagaacttt acagagattc ggacttgttt 180
caagtaaate caaaaagtcc agtggcagac acatgtctcc tgcagagtcg caccttagtc 240
tatgtttgaa acacgtattc ttacagccac gtgtacgggt gcgtagtatt atgtttatcc 300
actttttatg tactcccttt gtattactgc ttctttttgc ctgggtattta ccgagttctc 360
cagaattttg ggtatacttt gcactgcatt ccgctcgagc ctgggtgtgg attttaaaaa 420
acttgtgctt tccagatttc atat 444

<210> 5656
<211> 209
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-F3
<400> 5656

cgaccacgc gtaagccac gcgtccgagg acgcgtgggc acagattccg ttgtgcagaa 60
tgacgccgtg gatagcactt cagacatgta tgatgaattg acctatttag ttcaaaattg 120
cgaagttact gaaccgaaga acaaattgaa tggcttctta ctttatattt ggtaaattgt 180
gaaaaatata ttttctttta ttcataatg 209

<210> 5657
<211> 420

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F6
 <400> 5657

aattccccggg tgcacccacg cgtacggcaa attggcagag ttttgtcaaa aagtaccagg 60
 actccgtgga ctgtacaact ttttagctcg cgtgcatata agaggtgtag aaagagagtt 120
 gcgcaagtac ggactgagat acgatgacct tctcaacgag caagatccgg acgtgaaaaa 180
 agctcttgaa atgctcccgg aacatgagaa gcagttgaga gccaagcgtt ttattcgagc 240
 gtttgatttg tcgatgaaga agactcactt acccgatgaa atagcacaaa aggaagatat 300
 ttggaacca tacttgagaa gtcgcatcga gctgattcgt aaagaaaagc atcgaaatga 360
 gacctacaaa taaacaacaa taaaagtaaa agtttttccc ctttggtttg ggggggcggt 420

<210> 5658
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F7

<400> 5658

ggtaccagtc aggaatgccg ggctcgaccc acgagtcagg cgcagactgg tagaaacaat 60
 tgctcctaag cgcgatgata tagcaactcc aaaaaatatg gaaccgaaag cgcttagcat 120
 gttttgtact ctactgttgt cttccatgct cgagtatcgt ttactatta cggagactat 180
 ctacgggtggt tctgttattg gagataactc gaaatatttt ttagatgttg ccaataactt 240
 tggcttttat tatgagtatt gcacaggtgg aatattatca gacgacaaaa tggaagaaga 300
 cgaaatggac gagatgaacg agggaaatgt tcaaagtctc aagttaatat ttccgaaaat 360
 tgttttcgaa ggtattaaga aagagtattt ggactacc 398

<210> 5659
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F8
 <400> 5659

tacaagtcag gaattcccgg ctgacccac gcgtacggac tttgtgtgca gtgttgacca 60
aacagggact cgacagatat ggcttccggg gttgcagtag acgatacatg cggaaaggag 120
ttcactgttc ttgtgagaag cacgccaaga aagtaccgtg ctattatddd caaactcact 180
gatgacctgt cttctgtatg tgtggaaaag acgcttcccg cagccaacat aaccaagtgc 240
agtgcacaag aagactggaa aaagtttgtg actgaattgc cccaaaacga ttgtcgtdttt 300
gcagtatatg actttgagta tcaaacttct gaagggtgtt ccaaaaatag aataatattc 360
attctttggg cacctgaaag tgcgaagata aagtcaaaga tggtgtaatc ttcattccaga 420
g 421

<210> 5660
<211> 317
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-G1
<400> 5660

cggtcaggaa ttcncggctc gaccacgcgt cagagtttgg ttgttttctt ggtagcagtt 60
gtacattcaa catcatcaaa tgccaaaggg aggaaagaaa gattcttcaa agaaagaagc 120
cacaagtaaa cctgcagcag cagatgctac aaagacgaca gaaaagtctg gtccggaagc 180
caagttgaag ggaactggtg caaagaaaca ataaaaagtt gactatgcat gtgcagtcct 240
gttatgtttt gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga 300
gaaaattttt tatattt 317

<210> 5661
<211> 420
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-G10
<400> 5661

aattccgggc tcgacccacg cgtacgagaa agtaaggaat aagaacgaag aactacgaca 60
aaaacgcaa agattagaag agttggaagc tcagaagaga gctgtagaag ccatgttggc 120

ccgaaatgct tcgagttcag cttctgaact tcagccagaa agctgcatac atcttccttt 180
tattatcggt tctaccagtg cagacacttc tatcgatgtg gaaatggaag aaaatgcgga 240
agaagtttta ttcactttta atagaccttt tgaaatatac gatgaccaag tcattttgca 300
aggaatattt cgaaacacaa atgtttccaa cagaagagac gaacatgaaa acgtatcggt 360
ttctgagaag caagcatatt caagtaattc tagacagtcc agtgagccaa gtcaacattc 420

<210> 5662
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-G11

<400> 5662

gtaccggtag ggaattcccg gctcgacca cgcgtacgcg gacgcgtggg ctagcattac 60
tgcaagtggg ggttgagttg cagagagtgc aactgtagcg agcatagatt tatctcccca 120
ctctgcggtg aaaatgatgg agaagacttg aagtatttga cccaacgcaa tatttccaaa 180
agcaccatat tgagattcgg agcttgatgc atattcctta ctgtaaaaat catcctgggt 240
ttggtttact tgggacggag tttccttcag atatgcacgt atattatcga ccccgaaacca 300
aaacaacaaa gcagttgcaa tataatcatc gataggaagg gtatgtaatg agctgggaaa 360
tgcatgaaac aattgtccaa tcagtacgga aagaatcgtc ataacaagaa gtgccgtgag 420
agttgcaaca nacacta 437

<210> 5663
<211> 429
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G12

<400> 5663

taccggttag gaattcccg ctcgaccac gcgtacggtt ttgggggttg tttgggtgaa 60
gatggcgcac tatcaacatt accgagctag tacagcgggt atagcttttg gagaagcact 120
ttctgaactc aaggaacaga agctctttac ggaagcggaa gaagatgtga tttggaggaa 180
gtttgaccgt gccatgacag aagcccttgc gtccaacggt gtggatacac accttacgtt 240

gaaagtaagt ccttgagcct ttcttagcag cctttaacct tgcttagggg agtcttcac 300
 actatcgatt ctgtgataat gtgtggcaat tcttcgtgaa agacgcacaa gtgaaatttg 360
 acaaaaggtc ggattttact cccgctgggt atctgaaagt agttgcttgt gattatgtaa 420
 agccaacca 429

<210> 5664
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-G3
 <400> 5664

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 cgcgagctgc tttatctttt ttgatttcta ccgcggttac aaagtcttat catcctcata 120
 ataacacaca cgattatgtc tccttgattt tcttgccatt gtatcgcaac tgggttcaac 180
 gcggttgaat tcatagcggt ccttttgtac tagctaata tactggtgac tccttgaaaa 240
 aacaagaaaa-ggetgataaa-gttcaaaaga-agacaaagaa_gaaaggctcc acaacggatt 300

ccaaaaaggt aaaaaaggcc agcctcgagt cgcagccgga agatggtgcg gaaacaaagg 360
 ttgaacctcc tccaaaagag aagaagttta agaanaagaa ggatcctgaa acagcgatac 420
 ctgaatatgc catccaaagc ttttttgag 449

<210> 5665
 <211> 257
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-G4
 <400> 5665

accggttagg gattccccgc tcgccccacg cgtccggaca cgcgtccgga tcgatgcaca 60
 cacaggaaag cagtacaaca agacagagaa aggaggaacc tgagtatcac gacgacaaga 120
 gggagtacat gaggacagac acgatcaggg aactaacagt aagagaacga ctaatgtgaa 180
 tgacagcagg aacgtatttg aacacgagag tgtaacgcgc gtaccttttg catcatgtcc 240

cagcgagtga acgagga

257

<210> 5666
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G5

<400> 5666

ccgcccaggt accagttagg aatgcccggc tcgaccacg agtacggtca gttcttccga 60
tgaattccgc ccttttgtaa gaagattacc tgaattcaaa ttctggcttt ctgccactcg 120
agctaccgtc cttgctttgt ttgctaccgc gtttcgattc ctggacatac ccgatattttg 180
gcctatcttg gttatttact tcattctgct ttttggtgca actatgagaa ggcagattgc 240
ggatatgatt caataccgtt atttaccttt taacattggc aaaaagaaat actcaagttc 300
ttccaagttt gtggcaaggc gacaagaagc ccatgataac gatgctgttg cgttgaaaag 360
ttccgcaaac gtcaaacttc caacttcagt ggaacccccg aggaatagtg cgactccg 418

<210> 5667
<211> 378
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G6

<400> 5667

aggtactagt ctggaattcc cggctcgacc cacgcgtacg cccaagcatc cggaaagagg 60
cagctacggg aaagcagtaa gacaagaaag acacaggaat caactgagta acaggaataa 120
ggaaggaggat aatcatgaa ataaagatca aggaattaag aataagagaa cgagtaatgt 180
ggatgaaagc acgaaagtat ttgaagaaga tagtgtaaag cacgtacctt ttgcaaaatg 240
tcccatcgag tgaaatagga tgcacaaaca aaggcataga agtagtcagg taacacccgc 300
atctatttga tcttatgctg tccattcaaa gtagggtga accactatct gtgagaaaag 360
atttgggaga gatcgcat 378

<210> 5668
<211> 421
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G7

<400> 5668

gaatgcccgg ctcgaccac gagtcagcaa gatggaaagg aacaaaagga aactagttcg 60
aaagcagaaa aacagaaaca acgttgcgaa agactaaaga atcgagcgct gcagagagat 120
aagagagtat tgtttatgtt ggaacaaata aggaaagccg gctgttatct ccctgaggag 180
cgcattcttt gtcaacattg tgaggctgct gtaggaggtg gttttcaaga cgatggtagc 240
gtcgtccttt gttcgaatca cttactatct caggatcacg ctaatgtcac gcttggtcac 300
gagttggtac acgcttttga tcagtgtcga gcacacgtga actggtcaga ctgtacccat 360
cacgcttgta gtgaaattcg tgcgggttta ttaagtgggtg actgtgattg gaaacgagag 420
t 421

<210> 5669

<211> 114

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H1

<400> 5669

agggtgaaaa caacaaaata acacaaaaca acaacccaaa caaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaga 114

<210> 5670

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H10

<400> 5670

acgccgacag gtaccggtta ggaattccgg gctcgacca cgcgtacgcc ttgtgtgagt 60
gttcctggag tgaagacgaa atatgagaat gtgaatgtcg ttacagttcg tgagaatata 120
gaaggagaat acagcggttt ggaacacgtg gtgtatccag gtgtggtaga aatgatcaaa 180
ttgatcacga gagaagcttc gttgcgcgtt gctagatatg cttttgaata tgcgaagaac 240

aatcaaagaa aaatggtaac tgcagttcat aaagcaacgg tgatgaaacg agcagatggt 300
 ctcttttttag aatggtgtcg agaagtggct caagaatata cgaatattca atatgaagaa 360
 ttgttgatcg atacatgtgc tgctcgcttg gtacagaata cttcgcgttt ggatgtcatg 420
 gtgatgccca atttatatgg cgatatactc agtga 455

<210> 5671
 <211> 312
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-H12
 <400> 5671

cgacccacgc gtacggggcc aacgaacccg tcggacatac gtttttcata tcaactatta 60
 gatggcttga agaaagctgt ctatataact gcgacagcac cttttttgca ctatcaccag 120
 gaaatacatg gaaattcttt ctgcactata aatatatggg cagtgccatt acaagccaca 180
 aactaccag ttcaccacat gattatgatg ccacatgggt tactttccaa aaccttgtgg 240
 aactgccgt gccaatccac ccgttgtagg ttgtatccag acatgcaggt tcagcatggg 300
 tccaactcat tt 312

<210> 5672
 <211> 354
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-H4
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